

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

ILLUSTRATED AND DESCRIPTIVE

CATALOGUE MAR

OF

BOTANY
LABORATORY

Mangelsdorf Bros. Co.

1899



STORE
424
COMMERCIAL
STREET.

1899



WAREHOUSE
110
SOUTH FIFTH
STREET.



SEEDS

ATCHISON, KAS.

OFFICE OF
MANGELSDORF BROS. CO.

TO OUR FRIENDS AND PATRONS, GREETING:

First of all we want to thank you for the liberal patronage in the past twenty-four years, but we again solicit your orders by placing before you our 1899 Catalogue of **FRESH, PURE, and RELIABLE SEEDS.**

Those who have not dealt with us we ask that they give us a trial order this year, and we have no doubt we can convince them that it will be to their interest to deal with us, as we have one of the best equipped Seed Houses in the West.

Our Plant Catalogue will be ready March 1st. If you do not receive it, drop us a postal card, and it will be mailed to you at once.

Your attention is respectfully called to the following instructions, which, if followed, will be an aid to you as well as to ourselves.

INSTRUCTIONS.

Postage Paid—We deliver, postage paid, to any post office in the United States, Vegetable and Flower Seeds, in packets, ounces, and pounds (Beans, Peas, and Corn by measure excepted) when ordered at retail prices.

Postage to Remit—As prices of Beans, Peas, and Corn are quoted without postage, it will be necessary to add at the rate of 15c. per quart for Beans and Peas, and 10c. per quart for Sweet Corn, when ordered sent by mail.

Seeds by Express—When seeds are ordered to be sent by express, an allowance of 8c. per lb. is made on all Vegetable Seeds, except Beans, Peas, and Corn, and the amount may be deducted from remittance.

Freight—Field and Agricultural Seeds, Seed Potatoes, Sweet Potatoes, Shrubbery, Implements, and other bulky or heavy articles can be sent only by express or freight at the purchaser's expense.

Packing—No charge is made for boxes or packing, nor for delivery to freight depots or express offices.

Remittances—Should be made by Post Office Money Order or Postal Notes, Drafts on Banks, or Express Money Orders. Where not possible to obtain these, the letters should be registered. Postage Stamps will be found a convenient method of remitting for small amounts, and we can use them to advantage.

Cash with Order—Please send money with the order sufficient to cover the whole bill. During the busy season, to make out bills for customers, charge, and in a few days receive the money, make the proper credit and send receipt, requires a large amount of unnecessary work.

C. O. D.—We decline to send goods Collect on Delivery, unless a remittance is made on account to guarantee the acceptance.

Order Early—While we aim to send off all orders the next day after receipt, during the busy season it is nearly impossible, hence the advisability of *ordering early*.

Safe Arrival of Packages—We guarantee the safe arrival of Packages in good condition. Frequently it happens that orders never reach us, or are without signature. When customers fail to receive their packages in a reasonable time, they should inform us, and at the same time send a copy of their order, and any other information necessary to trace the goods.

Name and Address—Please remember to write your *Name, Post Office, County, and State*, as distinctly as possible, and apart from the body of the letter, to prevent errors; also the nearest *Express Office*, or if on a stage route, send us special directions, giving us the name of the Express Company delivering goods.

Warrants—All seeds are selected with the greatest care, but as the best of seeds will often fail to germinate from causes over which we have no control, we give no warranty, expressed or implied, nor will we be responsible for the crop.

We shall be very thankful for sending us the names of such of your friends and neighbors who cultivate flowers, so we may send them catalogues, and we will cheerfully add some extra plants to your next order for your trouble and kindness.

Zur Beachtung:

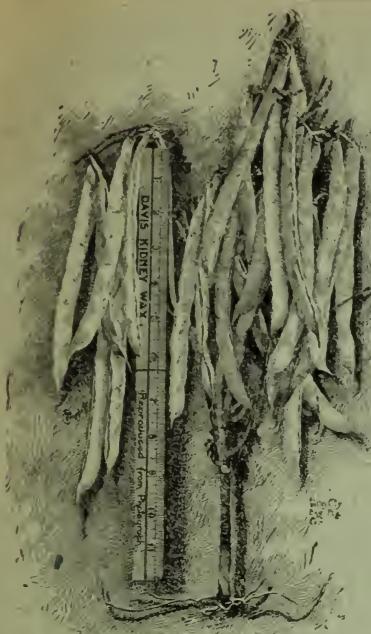
Alle Briefe und Anfragen in deutscher Sprache werden von uns deutsch beantwortet auch werden Bestellungen in deutscher Sprache ebenso prompt besorgt als andere.

ADDRESS ALL LETTERS AND DISPATCHES TO

MANGELSDORF BROS. CO.,

424 Commercial St., ATCHISON, KANSAS.

New and Choice Vegetable Seeds.



Davis Kidney Wax.

DAVIS KIDNEY WAX. THE BEAN FOR MARKET GARDENERS AND CANNERS.

*Bound to be the Most Popular
Wax Bean in Cultivation.*

A large, handsome pod, containing pure white kidney-shaped beans, and produces a third more bushels of pods to an acre than any other wax variety. It is unequalled for productiveness, compact, upright growth, earliness, hardiness, handsome appearance, and selling and shipping qualities. The plant is vigorous, carrying the pods well to the center and up from the ground. The pods are long, straight, oval, clear, waxy white color and handsome, often growing to a length of seven to eight inches, and when fit for use are quite stringless and of fine flavor.

The largest cropper, the handsomest pod, the best shipper and market bean in cultivation.

Pkt. 5¢, qt. 25¢, gal. 75¢.

WHITE CREASBACK POLE BEANS.

The best early green podded pole bean, a good grower and exceedingly productive. The pods grow from five to six inches long, perfectly round, and entirely stringless, very fleshy and of superb quality. An unusually good market and shipping sort.

Pkt. 5¢, qt. 25¢, gal. 75¢.



White Creasback



Sweet Corn. "First of All"

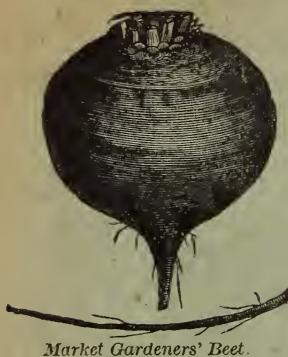
SWEET CORN. "FIRST OF ALL."

**Earliest of All. Earlier than the
Early Cory.**

The single statement of the preceding lines will make thousands of our customers eager to have the "FIRST OF ALL" SWEET CORN. The "FIRST OF ALL" is ready for the table from *three days to a week earlier than the Cory*, making it very desirable not only for family gardens, but extremely valuable to grow for market, where the earliest corn always brings by far the highest prices. The ears are of medium size, well filled with grains to the very tip. Many of the ears contain ten to twelve rows, while ears of the *Cory Corn* generally have only eight rows. In habit of growth it is rather dwarfer than the *Cory*, although similar in appearance, but *superior in quality, tender, and sweet.*

Pkt. 5¢, qt. 20¢.

Market Gardener's Beet.



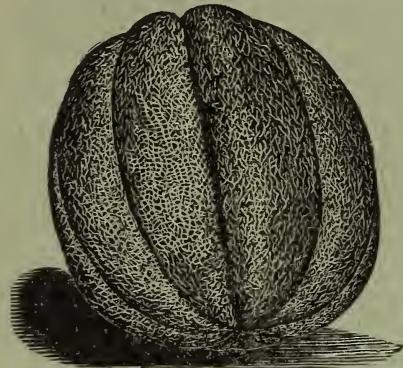
Market Gardeners' Beet.

Undoubtedly one of the best novelties ever introduced. It is very symmetrical, with small tap root, and but few fibrous roots; unusually small tops. Although on some soils the Egyptian can be marketed a few days before the Market Gardeners, still, within a week it will be found larger than the Egyptian, while it continues to grow until late in the fall, attaining a large size, and making a good eating and selling beet for winter. By the first of October they measure eight in. in diameter and aver-

age six pounds each in weight. One sowing only is necessary to produce early beets for market and main crop for winter use, which is not the case with any other variety. Color deep blood red; fine grained, and unsurpassed in quality. Summing it all up, it is the best beet for early market, and the best beet for winter use.

Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Rocky Ford Musk Melon.



Rocky Ford Musk Melon.

An improved strain of the Netted Gem variety, and derives its name from Rocky Ford, Colorado, where they have been extensively grown for several years. Last season they were shipped and sold in nearly every market in the United States, always commanding the highest prices. They are undoubtedly one of the best early Musk Melons for shipping purposes, of handsome globe shape, ribbed and thickly netted; flesh light green, thick meated, and of delicious flavor.

Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 30¢, lb. \$1.00.

Ground Cherry or Strawberry Tomato.

This delicate husk-enveloped tomato is unequalled for making preserves and pies. Dried in sugar as raisins or figs, or to use in fruit cake, they are unexcelled. They are handsome in color, and will keep until mid-winter or longer. They have a strawberry flavor, and produce fruit in great abundance. Aside from being a great curiosity and very attractive, they sell first-rate in market and are rapidly becoming very popular.

Pkt. 5¢, oz. 25¢.

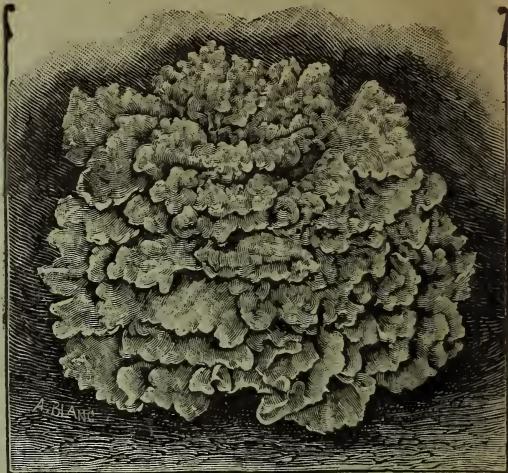
White Top Onion Sets.

EARLY AND HANDSOME.

We can recommend this Onion to our customers as we know it to be one of the best Table Onions, either green or matured. They grow to good size, and their globe shape and handsome silvery white appearance make them one of the most attractive market varieties. We know of no other Onion that will withstand the drouth of our Western Counties as well as this one.

Qt. 25¢, gal. 75¢, peck \$1.25. By mail add 10¢ per quart.

Lettuce.



Grand Rapids Forcing.

This grand new variety stands more neglect in the way of watering and ventilation, will grow more weight on the same ground, and will stand longer after matured than any other variety. It is of handsome appearance, and strong grower. Its upright habit admits of very close planting, and it matures two weeks earlier than Tennis Ball or Boston Curled.

Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 30¢, lb. 90¢.

Crimson Cushion Tomato.

Solid as beefsteak. Ripens thoroughly at stem end. The Earliest Large Tomato. Large Size. Smooth as an Apple.

Introduced by Peter Henderson & Co. several years ago.

The Crimson Cushion is not so long as the *Ponderosa*, but is much thicker through from stem to «blossom end;» in fact, so marked is this characteristic, that it is frequently almost round. The color is brilliant scarlet crimson, untinged with purple, and ripens up almost completely to the stem. The Crimson Cushion is almost seedless, requiring from ten to twelve bushels of ripe fruit to produce one pound of seed, whereas a pound of seed is realized from three bushels of ordinary tomatoes. These figures tell better than any description the «seedless» character of this grand variety. The flesh is firm and «meaty,» and of superb quality. It is enormously prolific and wonderfully early for so large a tomato.

Pkt. 10¢, oz. 30¢.

Nott's Excelsior Pea.

This new extra early wrinkled pea has come to stay. In earliness it equals *American Wonder*; in height it is half way between *American Wonder* and *Premium Gem*; in quality equal to *Premium Gem*, and as a cropper it excels either. In a comparative test with above side by side, under conditions exactly alike, the Nott's *Excelsior* yielded one-quarter more pods by measure, and by weight one-third more, which shows conclusively that the pods of Nott's *Excelsior* are more compactly filled with peas.

Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$4.50.

Vineless Sweet Potato.

This variety has no vines whatever, simply a bush like an Irish potato, which gradually falls over and covers the hill; leaves forked and dark green. In shape they are somewhat like the Yellow Jersey, the ends a little more blunt, a little thicker in the middle, and have a handsome and very saleable appearance; meat and skin of a dark creamy yellow, very dry and sweet, contains 20 per cent more sugar than any other variety; easy to keep, and will yield more than any other variety. Bed and sprout same as other varieties.

$\frac{1}{4}$ bu. 75¢, bu. \$2.00.

NEW VARIETIES OF

FLOWER SEEDS

Seample's Branching Aster.

This new branching Aster is quite different in several respects from any other variety. The branching habit is accompanied with great vigor of growth and profusion of bloom. The flowers are large size and exceedingly graceful, and are borne erect on long stems.

Assorted colors, per pkt. 10¢, 3 pkts. 25¢.

Giant Comet Aster.

New Asters of great beauty. The plants are tall and of much vigor, while the flowers are of such extraordinary size that they may, without contest, be said to be the largest of any in existence. Flowers are formed of large twisted and curled petals and look exactly like the most refined forms of Japanese Chrysanthemums. They must therefore take first place among Asters of unique beauty. Many colors, mixed.

Pkt. 10¢, 3 pkts. 25¢.

Giant Perfection Cosmos.

A new strain of this graceful and popular flower. The individual blooms measure four to five inches across, and being borne on long graceful stems, the effect is charming. The colors are delicate shades of blush, pink, rich crimson, snow white, etc. All colors mixed.

Pkt. 10¢, 3 pkts. 25¢.

Imperial Japanese or Emperor Morning Glories.

The flowers are of gigantic size, of good substance, remaining open the greater part of the day. The colorings are beyond description; the self or solid colors range from snow-white to black-purple, with all the possible intermediate shades such as pink, rose, fiery-red, copper-red, carmine, crimson, pale-blue, deep-blue, royal-purple, maroon, indigo, bronze, slate, brown, cherry, ash-gray, etc., others are edged with white, having throats of one of the above colors, while in others this is reversed, the throats being white and the edging of color; there is an endless number having flowers spotted, marbled, striped, flaked, splashed, etc.

Pkt. 10¢, 3 pkts. 25¢.

Ricinus Zanzibarensis.

CASTOR BEAN PLANT.

A new and distinct class which surpass in size and beauty all varieties heretofore known, the plants attain great size, presenting a splendid aspect with their large leaves, forming a perfect pyramid of elegant foliage, the seeds are very large and of different colors.

Packet 5¢.

The True Moonflower.

This is not a new flower but one which gives such universal satisfaction that we want to call special attention to it again. It is one of the most rapid climbers, and the vines are almost covered with immense white flowers, many of them measuring six inches across. The seeds should be started early in a window box or hot bed.

Packet, 5¢.



New *Salvia Splendens*, "Drooping Spikes."

Salvia--Splendens.

SCARLET FLOWERING SAGE.

One of the most effective and gorgeous of bedding plants, bearing long spikes of dazzling scarlet flowers in great profusion from early in July till frost. It is a half-hardy perennial, but blooms from the seed the first year, and has become quite a favorite in the past few years.

Packet 10¢.

We issue each Fall a Special List of SUMMER FLOWERING BULBS for Fall Planting, such as

Lilies, Hyacinths, Tulips, Crocus, Etc.

WE MAIL THIS LIST TO ALL WHO APPLY FOR IT.

Summer Flowering Bulbs.

THE cultivation of Summer Flowering Bulbs is increasing from year to year. Their culture is more simple and easy, as they require less care in starting. They grow rapidly, flower the first season, and bloom and multiply every year, and most of them are so beautiful, graceful and fragrant that they are now considered indispensable by all lovers of flowers.

CALADIUMS.

This plant is one of the best for yard or lawn ornaments; its large and tropical foliage makes a pretty effect when planted with Cannas for center of a flower bed. We have large and well matured bulbs that can be relied upon for a fine production of foliage.

10¢ to 25¢ each.

CANNA.

Since the introduction of the New French Cannas, these plants are undoubtedly in the front rank of Summer Flowering Bulbs, their tropical foliage and the exquisite flowers of the French varieties cannot be excelled. Their culture is very easy; all they require is a rich soil to bring out their foliage and flowers to perfection. We have a good collection of both the common and French.

Common, 10¢ each; \$1.00 per doz.
French, 15¢ each.

CALLA LILY.

THE GEM OF DWARF CALLA.

We want to call special attention to this novelty. It commences to bloom when very small, and blooms much more freely than the old Calla, having sometimes as many as eight flowers at one time, and continues to flower nearly the whole year.

25¢ each.

DAHLIAS.

The Dahlia is one of the showiest of our autumn flowers, commencing to flower in August, and are in a perfect blaze of bloom until cut down by frost. The Cactus and Pompon varieties are especially fine for cut flowers. The Dahlia delights in a rich soil.

Cactus Dahlia	15¢
Pompon Dahlia	15¢
Double Dahlia	15¢
Single Dahlia	15¢

Assorted, per doz. \$1.00

GLADIOLUS.

For a succession of flowers during the whole summer season no plants are better adapted than the Gladiolus. By planting a few bulbs the latter part of April, and every week or two thereafter until the first of September, you can depend on having these beautiful flowers at all times during entire summer.

Bulbs 5¢ each, 50¢ per doz.

MADERIA VINE.

The Maderia Vine is a favorite tuberous-rooted climbing plant, with dense and beautiful foliage, and of very rapid growth, twining on strings to a great height or forming garlands in fanciful forms. In the autumn it is covered with feathery white flowers, sweet and fragrant as the Mignonette. It flowers best in a warm, sunny location.

Tubers 5¢ each, 25¢ per doz.



Tuberous Begonia.

TUBEROSES.

The Tuberose cannot be surpassed for delicious fragrance and delicate pure white flowers. We have both the Tall and the Pearl. They should be planted in a warm situation, but partially shaded from the sun to give a successful bloom.

Tall, Double, 5¢ each; 40¢ per doz.
Pearl, 5¢ each; 40¢ per doz. *

TUBEROUS BEGONIAS.

Although not a novelty, they are worthy of special mention in the Catalogue. They are amongst the handsomest of Summer Flowering Bulbs, and are coming into popularity more every year. There is no plant that will prove more satisfactory either for pot or bedding than the Tuberous Begonia. We have them in the following colors; Brilliant Red, Dark Red, Rose, White, and Yellow.

Bulbs 15¢ each; \$1.50 per doz.

Directions for A Good Vegetable Garden.

GOOD SOIL.

A rich sandy loam is the best, but a fair degree of success may be secured from any soil which can be made rich and friable. Good vegetables cannot be grown on barren sand, a cold, hard lumpy clay, nor in the shade of orchard or other trees. A very small garden, well cultivated and cared for, will give larger returns and be in every way more satisfactory than a much larger one poorly prepared and neglected.

LIBERAL

A soil which does not need enriching

in order to produce the best results

MANURING.

is rarely found, and very often success is in proportion to the liberality with which manures have been used.

Well decomposed stable manure where straw bedding has been used is the best; often wood ashes at the rate of $\frac{1}{2}$ to 1 bushel to the square rod will be of great benefit. Commercial fertilizers are excellent, and may be used at the rate of 4 to 12 lbs. to the square rod.

THOROUGH

PREPARATION.

Rich soil and liberal manuring will avail little without thorough preparation. The soil must be made friable by thorough and judicious working; if this is well done, all that follows will be easy; if it is neglected, only partial success is possible, and that at the cost of a great deal of hard work. The garden should be well plowed or spaded, taking care, if it is a clay soil, that the work is not done when it is too wet. If a handful from the bottom of the furrow moulds with slight pressure into a ball which cannot be easily crumbled into fine earth again, the soil is too wet, and if stirred then will be hard to work all summer. The surface should be made as fine and smooth as possible with the harrow or rake. It is generally necessary to plow the whole garden at once, and to do this in time for the earliest crops, but the part which is not planted for some weeks should be kept mellow by frequent cultivation.

GOOD SEEDS

PROPERLY

PLANTED.

There is no more prolific source of disappointment and failure among amateur gardeners than hasty, careless, or improper sowing of the seed. A seed consists of a minute plant minus the roots, with a sufficient amount of food stowed in or around it to sustain it until it can expand its leaves, form roots and provide for itself, the whole enclosed in a hard and more or less impervious shell. To secure germination, moisture, heat, and a certain amount of air are necessary. The first steps are the softening of the hard, outer shell, the developing of the leaves of the plant from the absorption of water, and the changing of the plant food from the form of starch to that of sugar. While in its sugary condition it is easily appropriated, but if not used it speedily decays itself and induces decay in the plant. A seed then may retain its vitality and remain unchanged for years, while after germination has commenced, a check of a day or two in the process may be fatal. There is no time from that when the seed falls from the parent plant until it in turn produces seed, when the plant is so susceptible of fatal injury, from the overabundance

or want of sufficient heat and moisture, as at that between the commencement of germination and the formation of the first true leaves, and it is just then that it needs the aid of a gardener to secure favorable conditions. These are—

FIRST.—A proper and constant degree of moisture without being soaked with water. This is secured by making the surface of freshly dug soil so fine and the pressing of the soil over the seeds so firmly with the feet or the back of the hoe, that the degree of moisture remains as nearly uniform as possible.

SECOND.—A proper degree of heat, secured by sowing the seed when the temperature of the soil is that most favorable to germination. Too high a temperature is as detrimental to some kinds as one too low is to others. The proper temperature for each sort may be learned from careful study, and the experience of the most successful gardeners in your vicinity.

THIRD.—Covering the seed to such a depth that while a uniform degree of heat and moisture is preserved, the necessary air can readily reach the germinating seed, and the tiny stem push the forming leaves into the light and air. This depth will vary with different seeds and conditions of the soil, and can be learned only from practical experience. In general, seeds of the size of the turnip should be covered with half an inch of earth pressed down, while corn may be an inch, beans an inch or two inches, and peas two to six inches deep.

FOURTH.—Such condition of soil that the ascending stem can easily penetrate it, and the young roots speedily find suitable food. We can usually secure this by thorough preparation of the ground, and taking care *never to sow fine seeds when the ground is wet*. Occasionally a heavy or long continued rain followed by a bright sun will so bake and crust the surface that it is impossible for the young plant to find its way through it, or a few days of strong wind will so dry the surface that no seed can germinate. In such cases the only remedy is to plant again.

JUDICIOUS

CULTIVATION.

Not only should every weed be removed as soon as it appears, but the crust which forms after a rain should be broken up and the ground stirred as soon as it is dry enough to permit it. The more frequently and deeply the soil is stirred while the plants are young, the better, but as they develop and the roots occupy the ground, cultivation should be shallower until it becomes a mere stirring of the surface.

HOT-BEDS.

For early vegetables, some provision for starting certain plants earlier than can be done in the open air is necessary; for this purpose nothing is better than a good hot-bed, and its construction is so simple and the expense so light that every garden should have one. A hot-bed proper not only protects the plants from the cold, but supplies *bottom heat*. By this term the gardener means that the soil is constantly kept several degrees warmer than the air above, that being the condition so far as heat is concerned, which is most favorable for

rapid and vigorous growth. It is evident that to produce this we must in some way apply our heat below the surface, and it is usually done by making a compact pile of some fermenting material and covering it with the earth in which the plants are to grow.

HEATING MATERIAL.

The best heating material that is easy available is *fresh* horse manure, containing a liberal quantity of bedding of straw or leaves. Such manure, if thrown into a loose pile, will heat violently and unevenly and will soon become cold. What is wanted in the hot-bed is a steady and moderate but lasting heat. To secure this, the manure should be forked over, and if dry, watered and allowed to stand a few days and then be forked over again, piled and allowed to heat a second time, when, after a few days more, it will be ready for use. The object of this repeated forking over and piling is to get the whole mass into a uniform degree of fermentation.

SASH.

Gardeners commonly usesash made especially for hot-beds and glazed with small lights cut from odds and ends and so furnished at very low rates. Such sash can usually be procured in any of our large cities, and costs much less than if made to order. For garden use, however, we much prefer a small size that can be easily handled, and the use of larger and better glass.

THE FRAME.

This may be made of sound one-inch lumber, the back twelve to fourteen inches high, the front ten to twelve. It should be well fitted to the sash so as to leave as little opening as possible and yet allow the sash to be easily slid up and down, even when the frame is quite wet.

THE SOIL.

This should be *light, rich, friable*. Any considerable amount of clay in it is very objectionable. If possible, it should be quite dry and unfrozen when put into the bed; for this reason it is much better to prepare it the fall before, and cover the pile with enough coarse manure or straw to keep out frost.

MAKING THE BED.

This requires careful attention, as future success depends largely upon the manner in which this work is done. Having cleared away all snow and ice, build a rectangular bed one foot larger each way than the frame to be used, carefully shaking out and spreading each forkful and repeatedly treading down the manure so as to make the bed as uniform as possible in solidity, composition and moisture. It is of the *utmost importance* that this shaking apart and evenly pressing down of the manure should be carefully and thoroughly done; unless this is done one portion will heat quicker than the others, and the soil will settle unevenly, making it impossible to raise good plants. The proper depth of the bed will vary with the climate, season, and the kind of plants to be raised. A shallow bed will give a quick, sharp heat and soon subside; a deeper one, if well made, will heat more moderately but continue much longer. For general purposes, a bed one and a half to two feet deep will be best.

The bed completed, the frame and sash may be put on, and fresh manure carefully packed around the outside to the very top (if the weather is at all severe, this outside banking should be replenished as it settles). The bed should then be allowed to stand with the sash partially open for a day or two to allow the steam and rank heat to pass off. The earth should then be put on and carefully leveled. Care should be taken that the soil is dry and friable. If wet or frozen soil must be used, it should be placed in small piles until well dried out before spreading. The heat at first will be quite violent, frequently rising to 120 degrees; but it soon subsides, and when it *recedes* to 90 degrees the seed may be planted. The importance of using dry soil and allowing the first rank heat to pass off is very great. Every

season thousands of hot-beds fail of good results from these causes, and seedsmen are blamed for failure resulting from over heat, or wet, soggy soil.

MANAGEMENT OF THE BED.

The essentials for success are a steady, uniform degree of heat and moisture; keeping the soil at all times a few degrees warmer than the air, and the careful «hardening off» (by exposure to the air and diminishing the supply of water) of the plants before transplanting into the open air. Simple as these may seem to be, there are many difficulties in the way of securing them, prominent among which are overheating the air under a bright sun. Without experience one would scarcely believe how quickly the temperature inside of a well built hot-bed will rise to 90 or 100 degrees upon a still, sunny day, even when the temperature outside is far below freezing, or how quickly the temperature will fall to that outside, if upon a windy, cloudy day the sash is left open ever so little; besides, such a rush of cold air driven over the plants is far more injurious than the same temperature when the air is still. Again, a bed will go several days without watering when kept closed during cloudy weather, but will dry up in an hour when open on a sunny day. The details of management, however, must be learned by experience, but may easily be acquired by one who gives the matter careful attention, keeping constantly in mind the essentials given above.

A COLD FRAME

is a simple construction of boards for wintering cabbage, lettuce, cauliflower, brocoli, etc., for planting out early in the spring.

Select a dry, southern exposure, form a frame from four to six feet wide and as long as required. The back should be fourteen and the front six inches high, with a cross tie every three feet. Seeds of the above named vegetables, sown in open border early in September, will be ready to plant in cold frames about the last of October. The soil should be well prepared and smoothly raked before planting. Admit air freely on pleasant days, but keep close in severe weather.

TRANSPLANTING.

In transplanting, the main points to be regarded are, care in taking up the plants so as to avoid injury to the roots, planting firmly so as to enable the plant to take a secure hold of the soil, reducing the top to prevent evaporation, and shading to prevent the hot sun from withering and blighting the leaves. In transplanting from a hot-bed, harden the plants by letting them get quite dry a day or two before, but give an abundance of water a *few hours* before they are taken out. It is most apt to be successful if done just at evening, or immediately before or during the first part of a rain, about the worst time being just *after* a rain, when the ground being wet it is impossible to sufficiently press it about the plant without its baking hard. If water is used at all, it should be used freely and the wet surface immediately covered with dry soil.

WATERING.

The best time to water plants is at sunrise or just at evening. Water may be given to the roots at any time, but should never be sprinkled over the leaves in the hot sun, for it will make them blister and cover them with brown spots wherever it touches. If watering a plant has been commenced, keep on until the necessity ceases, or more injury than good will result from it; one copious watering is better than a little and often. The use of the hoe should always follow the watering pot as soon as the ground becomes sufficiently dry.

VEGETABLE SEEDS.



OUR LIST OF VEGETABLE SEEDS embraces all the well known standard varieties, and also such of the new varieties as have proved to be suitable and profitable for general cultivation in our soil and climate.

We have endeavored to describe the different varieties, so that their character and value may be understood, and give such simple directions for culture, as, with a little care will insure success.

ARTICHOKE.

A well known vegetable produced from tubers resembling potatoes; it makes an excellent food for stock. They are planted like potatoes, and as early as the ground will permit. Peck 35¢; bu. \$1.00.

ASPARAGUS.

Soak the seed 24 hours in warm water, and sow very early in the spring, thinly, in rows one foot apart; keep clean by frequent weeding and hoeing. At one or two years old, transplant to permanent beds.

Prize Taker—A desirable variety, mammoth size, and remarkably uniform in size and color; shoots measure from 1½ to 2 inches in diameter. Packet 5¢, oz. 10¢, ¼ lb. 50¢, lb. 75¢.

Conover's Colossal—This is such a vigorous grower that at two years old, from seed, it will send from fifteen to twenty sprouts. Pkt. 5¢, oz. 10¢, ¼ lb. 25¢, lb. 50¢.

ASPARAGUS ROOTS
—Two years old. Per 100, \$1.00; per 1000, \$7.50.

BEANS— Dwarf.

Under this name are classified all the low growing sorts. They are so sensitive to frost and cold that it is useless to plant them before the middle of the spring, when the ground has become warm and light. Plant two or three inches apart, in two and a half feet drills. They do best in light and rich soil.

For postage, add 15 cents per quart when ordering to be sent by mail, pints will be furnished at quart rates; quarter bushel at bushel rates. Packages of any variety postpaid.



Improved Earliest Valentine Snap Bean.

BEANS—Dwarf—Continued.*Dwarf Flagelot Wax Bean.*

Early China—A very early and excellent variety, both for snaps and shelled beans. Pkt. 5¢, qt. 20¢, gal. 60¢, bu. \$4.00.

Early Valentine—A most excellent sort, having round, fleshy pods, which remain a long time brittle and tender; very early and a good bearer. Pkt. 5¢, qt. 20¢, gal. 60¢, bu. \$4.00.

Early Long Yellow Six Weeks—Hardy and prolific; seeds yellowish drab. Pkt. 5¢, qt. 20¢, gal. 60¢, bu. \$4.00.

Refugee, or 1000 to 1—The standard late pickling variety; matures two weeks later than the extra early kinds. Pkt. 5¢, qt. 20¢, gal. 60¢, bu. \$4.00.

Dwarf Flagelot Wax—Introduced from Germany. The pods are of very large size, sometimes ten to twelve inches in length, entirely stringless, very fleshy, and of the finest quality. Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$5.00.

Rust - Proof Golden Wax—The pods are long, straight, and thicker than the Golden Wax, superior in quality and absolutely rust proof. Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$5.00.

German Black Wax or Butter—(Stringless). An excellent and much esteemed bean, with transparent, wax yellow, tender pods. Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$5.00.

Golden Wax—(Stringless). A week earlier than the Black Wax; pods large, long, and brittle; of a rich golden wax color. Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$5.00.

White Seeded Wax—Except in the color of its seed this variety bears a strong resemblance to the Black Seeded Wax. Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$5.00.

Kidney Wax—We consider this new variety the best of all the Wax beans. It is as early as the Golden Wax; pods very large, long, tender, stringless, and of a fine light golden color. It grows taller than the Golden Wax, and out-yields it by far. Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$5.00.

Henderson's Bush Lima—A most remarkable Lima Bean which grows in bush form, bearing richly flavored Lima Beans in great profusion through the entire season. This is a variety that should be in every garden, and one that no farmer should be without. Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$5.00.

Burpee's Bush Lima—The most wonderful and decidedly best Dwarf Lima in cultivation. Pods large, very productive, grows without the aid of poles, and produces large, handsome beans of excellent flavor. Pkt. 5¢, qt. 25¢, gal. 85¢, bu. \$6.00.

DWARF FIELD BEANS.

Large White Kidney—Pods long and rather flat, beans white, kidney shaped. Excellent green, and equal to any in a dry state. Pkt. 5¢, qt. 20¢, gal. 60¢, bu. \$4.00.

Dwarf White Navy—Very prolific, ripening its crop early and all at once. Pods short, straight, small, but containing six beans; beans small, oval, white, handsome, and of superior quality. Pkt. 5¢, qt. 15¢, gal. 50¢, bu. \$3.00.

Prolific Tree—The most prolific variety for field culture yet known; grows 18 to 20 inches high, branching out in all directions; bears its pods so high that they do not touch the ground; average yield, 60 bushels per acre. Pkt. 5¢, qt. 15¢, gal. 50¢, bu. \$3.00.

POLE BEANS.

Lazy Wife's Pole—This fine pole bean has become a great favorite. Pods from six to eight inches long, entirely stringless. The beans are white, and unsurpassed as shell beans for winter use. Pkt. 5¢, qt. 25¢, gal. 85¢, bu. \$6.00.

Early Dutch Case Knife—The earliest of the pole beans, with very long, flat pods; beans white; very good green or dry. Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$5.00.

Horticultural Cranberry—A medium sized, oval bean, light red creamy color, speckled pods striped with red; very productive. Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$5.00.

Large Lima Bean—A large late bean, with broad rough pods, seeds white. It bears profusely until killed by frost. Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$5.00.

King of the Garden Lima—Claimed to be larger, stronger growing, more productive, and with larger pods and beans than the large White Lima. Pkt. 5¢, qt. 25¢, gal. 80¢, bu. \$5.50.

*HENDERSON'S DWARF LIMA.*

Cut Short—A well known and favorite corn field bean. Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$5.00.

SOJA BEANS.

During recent years this variety has been largely sold under the name of German Coffee Berry at extremely high prices, but we prefer to offer it under its correct name. The berries ripen in about four months from time of planting, and produce a crop of twenty to thirty bushels to the acre, and are as easily grown as other beans. Its great value to the farmer lies in the fact that when ground it makes one of the most valuable crops for feeding stock and adds greatly to the milk production. Claimed also to be much superior to clover for fertilizing the soil and for pasturing, or feeding the green fodder, of which it frequently yields from eight to ten tons per acre. Sow broadcast one-half bushel to the acre, or it may be planted in drills three feet apart and one foot between plants. Pkt. 5¢, qt. 20¢, gal. 60¢, bu. \$4.00.

PRICES ON BEANS DO NOT INCLUDE POSTAGE EXCEPT IN PACKETS.

BEET.

The best results are obtained on a deep, rich, sandy loam. If wanted very early, sow in hotbeds and transplant, cutting off the outer leaves; or for general crop, sow as soon as the ground will permit, in drills eighteen inches apart, and thin out to three inches in the row. For winter use the turnip varieties may be sown in June. If possible, always sow in freshly prepared soil, which should be pressed firmly over the seed. A supply may be had for winter use by storing in a cellar and keeping covered with sand, earth or sods, to prevent wilting, or they may be kept out doors in pits, such as are used for apples and potatoes.



Edmund's Imp. Beet.

Edmund's Imp. Early Blood Turnip—This beet, of American origin has, by careful selection, been brought to a uniformly smooth root and small top, making it among the best for early table use. Roots dark red, interior color dark purplish red, zoned with a lighter shade; crisp, tender, sweet, and an excellent keeper. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 45¢.

Eclipse—Very desirable, owing to its globe shape, great smoothness and regularity; very sweet, flesh fine and dark blood color. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 45¢.

Egyptian Turnip—Very early; deep red color and tender; valuable for market. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 45¢.

Extra Early Blood Turnip—The standard early sort. Blood red, turnip shaped, with small top and tap root, very tender. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.

Bastian's Early—Color bright red, root uniform and of fine shape; best second early. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 45¢.

Long Smooth Blood—A long, smooth beet, growing to a good size, half out the ground; color dark blood red, top small, keeps well. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.

SUGAR BEET.

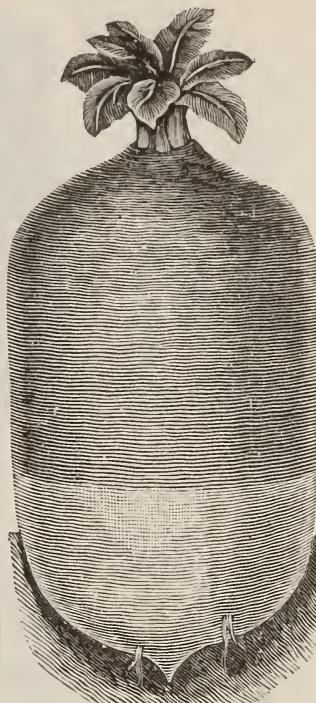
FOR SUGAR OR STOCK.

Champion Sugar—An improved variety from France, which affords the largest percentage of sugar of any known variety. Roots of good size, flesh fine grained and very sweet; good variety for cattle feeding. Pkt. 5¢, oz. 5¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.



Vilmorin's Improved White Sugar Beet—An improvement on the old White Sugar, containing a much larger percentage of sugar. Pkt. 5¢, oz. 5¢, $\frac{1}{4}$ lb. 15¢, lb. 35¢.

Red Top White Sugar Beet—Large size, and grows considerably above the ground; fine for feeding. Cultivated in England for its sugar. Pkt. 5¢, oz. 5¢, $\frac{1}{4}$ lb. 15¢, lb. 35¢.



Golden Tankard.

Mangel Wurzel

For Stock.

Long Red Mangel Wurzel

A large, long variety, grown for stock feeding, color light red, flesh white and rose colored. Pkt. 5¢, $\frac{1}{4}$ lb. 15¢, lb. 35¢.

Colden Tankard Mangel Wurzel

A distinct and superior strain of the yellow flesh Mangel. Exceeding every other variety in milk producing qualities, and on this account used largely by dairy farmers. Pkt. 5¢, oz. 5¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.

BROCCOLI.

Of the cabbage family, but more hardy. Sow the seed in the early part of May and transplant in June.

Purple Cape—Greenish purple heads. Pkt. 5¢, oz. 35¢, $\frac{1}{4}$ lb. \$1.00, lb. \$3.00.



Dwarf Green Curled.

Borecole, Kale, or German Greens—Are general terms applied to those classes of cabbage which do not form heads, but are used in their open growth. Some of the varieties are the most tender and delicate of any of the cabbage tribe. They are hardy, and are improved, rather than injured, by the frost. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

CABBAGE.

The early varieties are sown in hotbeds during February and March, and in cold frames under glass in April, and for late crops in the open ground through the month of May. For the fall and winter crop of late cabbages the seed should be sown in the month of June; indeed almost to the end of the month will do. Plants raised and transplanted during the month of June are much more sure of heading, being out of the hottest sun, and are more inclined to grow low to the ground. The early varieties may be transplanted in rows eighteen to twenty inches apart, and twelve to fifteen inches distant in the row. The later varieties should be set twenty or more inches apart, in rows two feet or more apart.

Early Etampes—About ten days earlier than *Wakefield*. In shape the heads are slightly conical, very solid and firm. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 45¢, lb. \$1.50.

Early York—A well known early variety; heads small, rather heart-shaped, firm, tender, and excellent flavored. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 40¢, lb. \$1.25.

Early Jersey Wakefield—Favorite market variety, medium size, and pretty sure to head. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 45¢, lb. \$1.50.

Early Express—Produces fair sized heads in eighty to eighty-five days from sowing of seed; does not form as large a head as *Early Etampes*, but it is ahead of this variety several days. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 45¢, lb. \$1.50.

Early Deep Head—A desirable second early variety. It is fully as early as the *Brunswick*, while the heads are as large, round, and considerably deeper. It is heavier, bulk for bulk, than any other second early cabbage; a splendid keeper. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 60¢, lb. \$1.75.

Early Flat Dutch—Medium size, solid head and short stump; early and of good quality; heads well. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 45¢, lb. \$1.50.

Henderson's Early Summer—Second early variety of great merit; heads large and compact. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 60¢, lb. \$1.75.

Fottler's Improved Brunswick—Excellent for second early or late; heads large and of fine quality. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 60¢, lb. \$1.75.

All Seasons—The sort almost universally grown on Long Island for New York market. Heads very large, round, often nearly spherical, but usually somewhat flattened; very solid, and of best quality; remarkable for its ability to stand the hot sun and dry weather. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 60¢, lb. \$1.75.

Hundred Weight—This cabbage is the largest variety known; remarkable for its immense size, firm heart and superior heading properties; heads broad, very large, frequently attaining a diameter of twenty inches and more, very much flattened, leaves of a pale green ashy color. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.75.



Early Deep Head.

Early Winingstadt—Large, cone-shaped solid heads of fine quality. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 40¢, lb. \$1.25.

Premium Flat Dutch—Superb, large, low growing cabbage, heads broad and flat, flat top, very close and hard, with but few outside leaves, a fall and winter variety; tender, and one of the very best to keep. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 45¢, lb. \$1.50.

Large Late Drumhead—Large fall and winter variety, with broad, flat, or round heads, very compact. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 45¢, lb. \$1.50.

Marblehead Mammoth—One of the largest varieties of the cabbage family in the world. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 45¢, lb. \$1.50.

Stone Mason—Heads large and solid, and of good quality. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 45¢, lb. \$1.50.

Red Dutch or Pickling—An esteemed variety for pickling; medium size. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 45¢, lb. \$1.50.

Drumhead Savoy—Grows to a large size and quite firm. The Savoys approach nearer to the delicious richness of the Cauliflower than any other cabbage. Sow early. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 60¢, lb. \$1.75.

Dutch Winter or Hollander Cabbage.

For several years past shipments of cabbage have been imported from Holland and sold in our markets at prices nearly double those obtained for the product from our own gardens. The heads of this valuable sort are of medium size, averaging a weight of eight pounds; are very solid and deep, and of a fine white color, making them entirely distinct from any other strain. Their quality is superior, and they keep better than any other sort, the heads being just as solid and perfect when taken up in spring as when they were put away in fall. No cabbage will sell beside it, even if offered at half the price.

Pkt. 5¢, oz. 25¢, $\frac{1}{4}$ lb. 65¢, lb. \$2.00



Dutch Winter or Hollander Cabbage.

BRUSSELS SPROUTS.

Sow in hotbed in April or May and transplant in July.

Dwarf Improved—A well known variety, and the best. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 40¢, lb. \$1.25.

CAULIFLOWER.

For spring and early summer crop sow in February or March in hot-bed and transplant to cold frame when sufficiently large, and to the open ground when the weather is warm enough. The soil for cauliflower should be like that for cabbage, but it is better to be made richer than is ordinarily used for that crop. After the heads begin to form draw the leaves over them and pin or tie them together to protect from the sun and keep them white. They should be cut for use while the «curd» is compact and hard, as they soon become tough and bitter after they open and separate into branches.

Early Snowball—It is exceedingly early and hardy, and is one of the surest to make a solid, compact head. For these reasons it is also growing more and more in favor for planting for the late summer and fall crop. Pkt. 20¢, $\frac{1}{4}$ oz. 75¢, $\frac{1}{2}$ oz. \$1.25, oz. \$2.00.

Extra Early Dwarf Erfurt—One of the earliest varieties; heads large, compact, and of fine quality. Seed sown early in March will by June produce fine large heads. Pkt. 20¢, $\frac{1}{4}$ oz. 75¢, $\frac{1}{2}$ oz. \$1.25, oz. \$2.00.

Early London—This is a standard variety; very tender and quite early; heads compact, solid, and of delicious flavor; good for general use. Pkt. 10¢, $\frac{1}{2}$ oz. 30¢, oz. 50¢.



Snowball Cauliflower.

Veitch's Autumn Giant—A distinct and valuable late variety; heads large, extremely white, firm, and compact; being well protected by foliage it remains a long time fit for use. Pkt. 10¢, $\frac{1}{2}$ oz. 30¢, oz. 50¢.

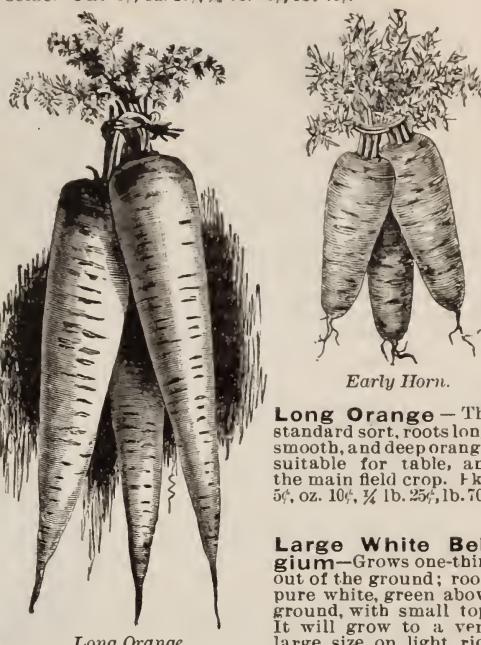
CARROT.

The Carrot delights in a sandy loam, richly tilled. For an early crop sow in the spring as soon as the ground is in good working order. For late crop they may be sown any time until the middle of June. Sow in rows about fifteen inches apart, thinning out to three or four inches between the plants.

Early Oxheart—A variety with short, thick roots, the diameter often exceeding the length; color bright orange, sweet, fine grained. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

Early Horn—Shorter than most other sorts; color deep orange; fine grained and agreeably flavored, top small. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 70¢.

Danver's Intermediate—Half long variety; in color it is of a rich shade of orange, smooth and handsome. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 70¢.



Early Horn.

Long Orange—The standard sort, roots long, smooth, and deep orange, suitable for table, and the main field crop. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 70¢.

Large White Bel-gium—Grows one-third out of the ground; roots pure white, green above ground, with small top. It will grow to a very large size on light, rich soil. Flesh rather coarse. Is raised exclusively for stock. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 50¢.

CORN SALAD.

FETTICUS, OR LAMB'S LETTUCE.

Sow early in the fall or spring in shallow drills about twelve inches apart, cover lightly, and if very dry, water occasionally.

Large Leaved—The best variety cultivated. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

Prices include postage, except on Beans, Peas and Corn.



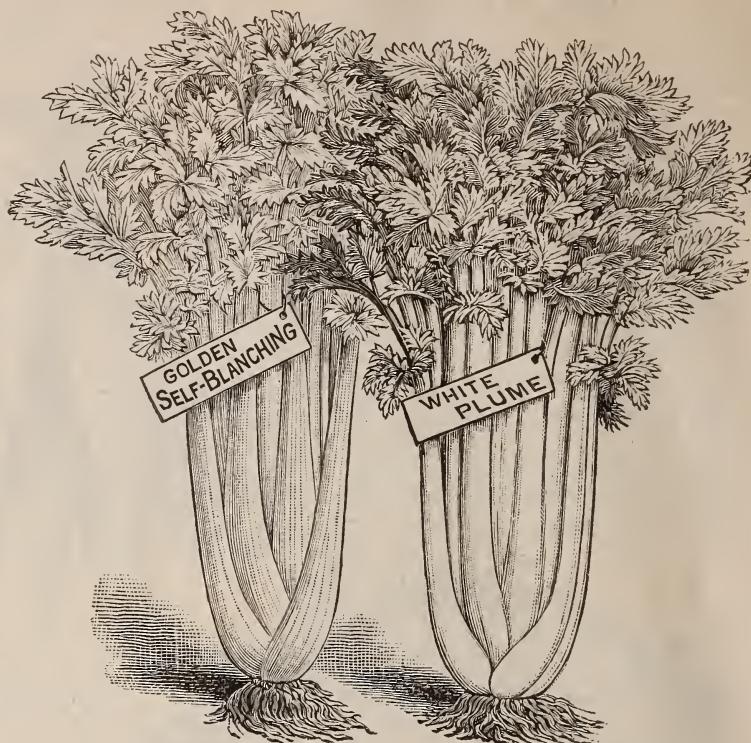
Corn Salad.

CELERY.

Sow the seed (which is slow to germinate) in shallow boxes, or in a finely prepared seed bed out of doors. See to it that the seed bed is kept moist, almost wet, until the seeds germinate, as plenty of moisture is essential to get a satisfactory growth. Keep clear of weeds until the time of transplanting in June and July. The tops should be shorn off once or twice before transplanting, to insure stocky plants. When from four to six inches high, transplant into broad, shallow trenches, three feet apart and six inches in the rows.

White Plume—A magnificent variety and very popular with market gardeners; the foliage is a natural white, and requires but little banking to blanch. It is also highly ornamental for the table on account of its silvery white leaves; flavor is excellent; solid and crisp. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 60¢, lb. \$1.75.

Boston Market—A favorite with the Boston gardeners, and a celery that is worthy the attention of every grower; very tender, brittle and mild. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.



Colden Self Blanching—Tested in all sections, and pronounced by large growers as the best ever introduced. The ribs are solid, crisp, brittle, and of the most delicate flavor imaginable. It is the celery for the home garden, market, and shipping. Pkt. 5¢, oz. 30¢, $\frac{1}{4}$ lb. 90¢, lb. \$3.00.

White Solid—(*The Mammoth White Celery*)—Very crisp, tender, and of delicious flavor. Try it. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.

Celeriac, or Turnip Rooted Celery—Grown for its roots, which are shaped like a turnip, and can be cooked like Kohl Rabi, or used for flavoring soups, etc. Very strong celery flavor. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.

CORN—Sweet.

A rich, warm, alluvial soil is best, and immediately before planting this should be deeply and thoroughly worked. Give frequent and thorough but shallow cultivation until the tassels appear.

For postage add 10 cents per quart when ordered sent by mail.

Improved Ruby Sweet Corn—Is entirely distinct from other varieties by reason of the stalks and husks which are of a very handsome dark red color, giving it an odd and beautiful appearance in growth; the stalks grow from six to seven feet high and bear from two to three good ears. The ears are of large size, completely filled with large, pure white grains, closely packed on the red cob. The corn is of the most delicious flavor, and so extremely sweet that it is most palatable even to eat raw in the field; it matures a little earlier than the *Stowell's Evergreen*. Its superb quality and large handsome appearance cannot fail to make it a most desirable sort, both for the market and family garden. Pkt. 10¢, qt. 20¢, gal. 60¢, bu. \$3.50.

Extra Early Adams—Not a sweet corn, but the earliest white corn grown; ready for use in sixty days. Pkt. 5¢, qt. 15¢, gal. 45¢, bu. \$2.50.

Zig Zag Evergreen—Ears good size and well filled out. It reaches maturity with the *Stowell's Evergreen* and continues to furnish edible corn longer than any other variety. Pkt. 5¢, qt. 15¢, gal. 45¢, bu. \$2.50.

Cory—The ears are much larger than any of the other early varieties, combining earliness, size, and fine quality. Pkt. 5¢, qt. 15¢, gal. 45¢, bu. \$2.50.



CORN—Sweet—Continued.

Early Marblehead—The earliest of all; of fair size and very sweet. Pkt. 5¢, qt. 15¢, gal. 45¢, bu. \$2.50.

Early Minnesota—Very early and of excellent quality. Pkt. 5¢, qt. 15¢, gal. 45¢, bu. \$2.50.

Egyptian—One of the best of the large varieties. Very sweet and tender, and of a delicious flavor, invaluable for canning. Pkt. 5¢, qt. 15¢, gal. 45¢, bu. \$2.50.

Mammoth—One of the largest varieties of sweet corn and late, very productive and rich flavored. Pkt. 5¢, qt. 15¢, gal. 45¢, bu. \$2.50.

Evergreen—Hardy and Productive, very tender and sugary, remaining a long time in a suitable condition for boiling. Pkt. 5¢, qt. 15¢, gal. 45¢, bu. \$2.50.

POP CORN.

Everyone should at least grow a small patch; always brings a good price, and affords a great deal of enjoyment for the children.



Rice Pop Corn.

Rice—One of the most popular market varieties; very handsome, short ears, long pointed kernels, very prolific. Per lb. 10¢, postpaid 18¢.

Golden Queen—Handsome, splendid yielder, sturdy growth, delicious flavor, and extremely tender when popped, very popular. Per lb. 10¢, postpaid 18¢.

Silver Lace—Handsome variety, smooth white pop corn; fine popper and produces heavily. Per lb. 10¢, postpaid 18¢, choice single ears 5¢.

FIELD CORN.

We carry a well selected stock of the best varieties of Field Corn.

SEE FIELD SEEDS.

CUCUMBER.

Cucumbers succeed best in warm, rich, sandy loam, and should not be planted in open air until there is a prospect of settled warm weather. Plant in hills about four feet apart each way, and, when all danger from insects is passed, thin out the plants, leaving three or four of the strongest to each hill. The fruit should be gathered when large enough, whether required for use or not; if left on the vines longer it destroys their productiveness. Sow liberally, as the yellow bug will require a part, and it is best to have a surplus of plants. A large shovelful of well rotted manure should be mixed in each hill.



Green Prolific.



Early Cluster.



Early Russian.

New Giant Pera—This is quite a novelty; fruit considerably larger than the long green cucumber. Fourteen to eighteen inches in length; vigorous, forming cucumbers fit to use for the table nearly as early as the shorter varieties. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

Early Russian—Valuable on account of its extreme earliness and prolific character; is about three inches long when fit for use, flavor pleasant and agreeable. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

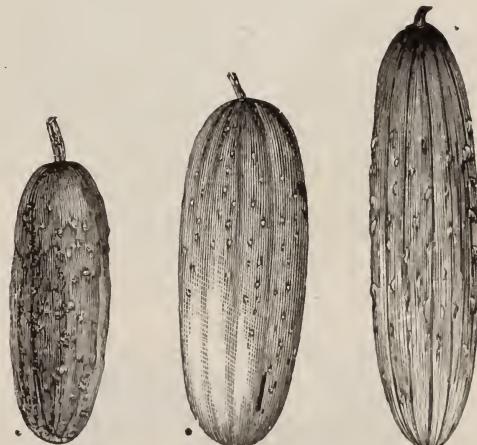
Early Cluster—A short, prickly, seedy variety, bearing in clusters near the root; comes to maturity very early. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Early Frame—The standard sort for table and pickling, of medium size, straight and handsome. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Green Prolific—Excellent variety for table use, being very tender and fine flavored, and makes a hard, green pickle. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Boston Pickling—Short variety of good form, and very productive; one of the best for pickling. Oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

White Dutch—This fine variety from Germany grows to a large size, and is of excellent quality and superior flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.



Early Frame.

White Spine.

Long Green.

Improved White Spine—The best sort for the table; grows uniformly straight and smooth, dark green with white prickles, tender and excellent flavored. The fruit retains its fresh appearance much longer than any of the yellow varieties. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

London Long Green—Excellent variety, about one foot in length, dark green, firm and crisp. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Small Cherkins, or Burr—Used exclusively for pickling; very small, length two to three inches; a strong growing sort. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

Serpent, or Snake—A remarkable and very interesting curiosity. The cucumbers grow curled up like a snake, with head protruding, and are sometimes six feet in length; can be used for pickling, but grown mostly as a curiosity. Pkt. 5¢, oz. 20¢.

JAPANESE CLIMBING CUCUMBER.



Japanese Climbing Cucumber.

A new cucumber which has created unparalleled sensation in the trade on the Continent, and has proved to be a valuable novelty. It climbs vigorously to a height of six or seven feet on poles, and is prized for its prolific and hardy qualities, a single vine bearing fifty to seventy-five well formed fruits, about ten inches in length, of a dark green color, and of delicious flavor. The fruits are netted when ripe, is very fleshy, solid, and sweet, with exceptionally few seeds. As a variety for slicing they will prove very useful, while for exhibition no other cucumber will attract so much attention. Their shape is very uniform, straight, and perfectly smooth. Although very hardy, it forces well, and comes into bearing very early. Pkt. 5¢, oz. 15¢.

EGG PLANT.

Sow seed in hot-beds in March or April. Plant out about June 1st, two-and-a-half feet apart. Those who have no hot-beds can sow sufficient seed in boxes in the house for a small garden.



Egg Plant.

EGG PLANT.

Improved New York Purple—The favorite market variety, of large size, smooth, deep purple skin, free from thorns, white flesh, and tender. It is readily distinguished from either the large round or long purple varieties, the plants being much more robust with leaves and stems thickly set with spines. Pkt. 5¢ $\frac{1}{2}$ oz. 20¢, oz. 35¢, $\frac{1}{4}$ lb. \$1.00, lb. \$3.50.

ENDIVE.

Sow from late in the spring to the middle of summer, in shallow drills; thin the plants to one foot apart in the drills, and when fully grown tie over the outer leaves to blanch.

Green Curled—A hardy variety, with beautiful curled, dark green leaves, very crisp and tender. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 40¢, lb. \$1.25.

Broad Leaved Batavian—Has broad, thick, plain or slightly wrinkled leaves, forming a large head. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 40¢, lb. \$1.25.

GARLIC.

Prepare the ground same as for onions, and plant the bulbs in drills eight inches apart, and four inches apart in the rows, and cover two inches deep. When the leaves turn yellow, take up the bulbs and dry in the shade, and lay them up in a dry loft as you would onions.



Garlic.

Bulbs— $\frac{1}{4}$ lb. 10¢, lb. 25¢.

Garlic bulbs by mail, 8¢ per lb. additional for postage.

HORSE RADISH.

Mark off rows two and one-half feet apart in rich, moist and well prepared ground; set the pieces of roots eighteen inches apart in the rows, two or three inches below the surface, the small end down. Cultivate thoroughly, until the tops cover the ground, when their shade will keep down the weeds.

Roots—Per doz. 20¢, per 100 \$1.00.

Horse Radish Roots by mail, 5¢ per doz. additional for postage.

KOHL RABI.

Cultivate same as directed for cabbage, taking care to set the plants no deeper than they stood in the seed bed, and in hoeing not to heep much earth about them.

Early White Vienna—The earliest and best for forcing; very tender, and excellent for table use. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.

Early Purple—Similar in habit to Early White Vienna, but differs in color, which is a bluish purple. A very handsome variety. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.

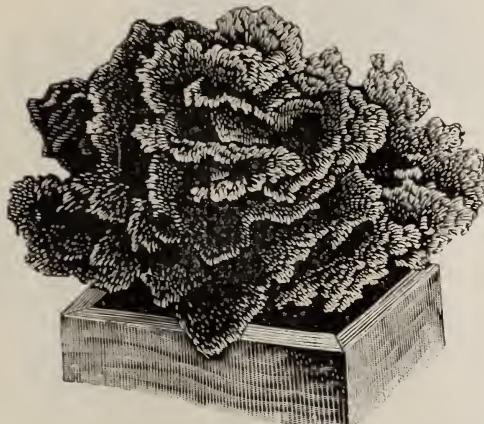
Large Green—A good sort for summer and autumn use. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 45¢, lb. \$1.25.



Horse Radish.

LETTUCE.

LETTUCE is one of the most extensively cultivated plants, and should find a prominent place in every garden, one of its principal requirements being good, rich soil. For early use sow under glass in February or early March, and transplant as soon as the ground can be nicely worked. Sowings may be made in the open ground from April to the middle of August every two or three weeks for succession. It may also be sown in the fall of the year, and transplanted to cold frames and wintered over the same as early cabbage. Lettuce must have good ground and abundant moisture.



Black Seeded Simpson

Early Curled Silesia—A superior early variety of very strong growth; leaves large, light yellow, wrinkled, large loose head of excellent flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

Early White Cabbage—An open spreading lettuce, grown mostly for an early spring salad; color light yellow. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

Early Curled Simpson—An improvement on the old Curled Silesia; very early; fine for forcing. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

Black Seeded Simpson—Similar in habit to above but much larger, and of lighter color, very crisp and tender, stands the heat of summer well. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

Denver Market—An early variety of head lettuce, either for forcing or open ground. It forms large solid heads of a good light green color, and is very slow to go to seed. The leaves are beautifully marked and blistered (like the Savoy cabbages), and are very crisp and tender, and of excellent flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 35¢, lb. \$1.00.



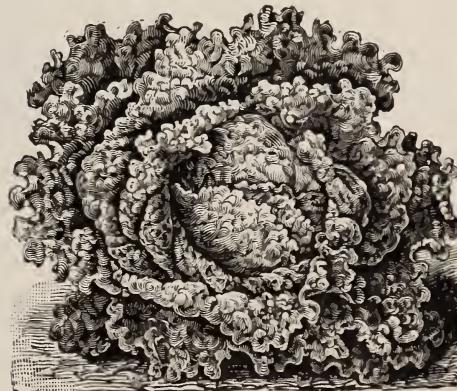
Prize Head.

Colden Ball—Distinct from all other sorts; color a delicate golden yellow, retaining the same beautiful color throughout the season, which enhances its value as a seller for market gardeners. It is very crisp, tender, and excellent in flavor. Good for forcing. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

Hanson—Large, solid, and of fine flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

Tennis Ball (Black Seeded)—Forms a close, hard head, with a few outer leaves. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

Prize Head—For general use no lettuce has ever given such universal satisfaction; forms a large, close head, very crisp and tender, and of excellent flavor, and has the faculty of keeping its good qualities throughout the entire season. We recommend this as one of the best for family use. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.



Denver Market.

Oak Leaved—This differs from all other varieties, in the fact of its having oak-shaped leaves, which are light green and very tender; very slow in running to seed; heads compact. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

Large Drumhead, or Victoria Cabbage—The largest of heading lettuces, forming an immense loose head, bright green without and light green or white within. Leaves very large, strongly veined, coarse, but the inner ones are very crisp and tender. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

Brown Dutch—An old sort noted for its hardiness. Leaves large, thick, green, tinged with brown. It always forms a large, solid head, which is somewhat coarse looking, but the inner leaves are beautifully blanched, exceedingly sweet, tender, and well flavored. Desirable because of its hardiness and fine quality. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 30¢, lb. 90¢.

LEEK.

Sow early in the spring in drills fourteen inches apart, and thin to six inches. Hoe the earth up to them in the course of cultivation.

Large Scotch, or Flag—Broad leaves growing on four sides, like a flag; a favorite variety. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 40¢, lb. \$1.00.

Roots—Per doz. 20¢; per 100 \$1.00.

Roots by mail, postage 10 cents extra per dozen.

MELON—Musk.

Cultivate as recommended for cucumbers, except that the hills should be six feet apart. Rich earth for the young plants is far better than manure, but if the latter must be used, see that it is well rotted. If the plants grow very rank, more and finer fruit will be secured by pinching off the ends of the shoots when about three feet long. The quality of melons of all varieties is largely dependent upon conditions of growth and ripening. Unhealthy vines, or unfavorable weather, produce fruit of comparative poor flavor.

Columbus Musk Melon—One of the best melons for shipping as well as for home use. This is not only one of the best melons as far as size, quality, and productiveness is concerned, but it is also one of the handomest. The melons are nearly round, densely netted, with hardly any perceptible ribs; the skin is a beautiful buff color, the flesh is green and very thick and solid, leaving only a small seed cavity; the flavor is of the very best. The melons average from ten to fifteen pounds each and are very solid, never burst, and can be safely shipped long distances. They are excellent shippers. They ripen with the Hackensack, are heavy yielders and good keepers. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Golden Gem—Uniform in shape and size, skin green and thickly netted, flesh of a light green color, and the inside surface, when cut open, being a beautiful golden color. They are extra early in ripening and productive. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

The Early Hackensack—A popular variety, of large size. It is round in shape, flattened at the ends; is of most delicious flavor, and wonderfully productive. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Miller's Cream, or Osage—One of the best. The flesh is of a rich salmon color, very thick, sweet, and melting in quality. The rind is thin and finely netted. They average about the size of the *Golden Gem*, but of handsomer shape and appearance; vines grow strong and are very productive. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Skillman's Fine Netted—A rough, netted variety; flesh green, very thick, firm sugary, and of the most delicious flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Bay View—Fruit long, and of the largest size, often weighing from fifteen to seventeen pounds under high culture, deeply ribbed, and covered with coarse netting; flesh green, thick, and of fine flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Improved Nutmeg—Is globular shaped, flesh green and very highly scented. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Montreal—Grow to a large, uniform size. The flesh is remarkably thick, and of good flavor for so large a melon. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

The Grand Rapids Early Market—Is of good flavor, but the main points in its favor are its extreme earliness, large size and attractive appearance. There is nothing we can so highly recommend for fancy grocer and hotel trade. Unlike many melons of this type, the Grand Rapids Early Market will stand shipping long distances with splendid results. It is an all around money maker, and no gardener that is "up-to-date" should be without it. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.



Grand Rapids Early Market.

Surprise—Very fine melon, thick fleshed, and of excellent flavor. It is round, with a thin, cream colored rind, thickly netted; flesh of a deep salmon color. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Large Yellow Cantaloupe—Good size, nearly round fruit, netted and slightly ribbed; flesh salmon color, thick, musk flavored. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

MELON PEACH.

Grows on a vine like a melon, and is of golden yellow color, resembling an orange in shape and size; the flesh is snow white. They make splendid mangoes, stuffed with cabbage like peppers. When they first ripen, they are tasteless, but they soon become mellow and sweet. For sweet pickles, pies, or preserving they have no equal. Pkt. 5¢.

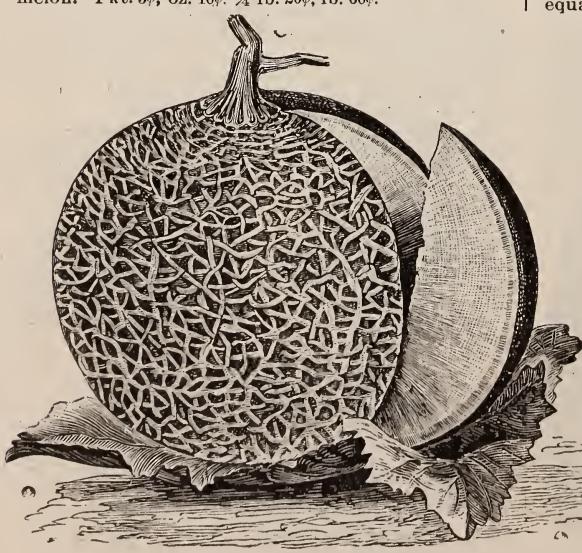
MELON—Water.

The essential thing is to get a good, strong vine early in the season, which may be secured by forming a large, well drained hill of rich earth, avoiding the use of manure in such a way as to cause the plant to dry out under the hot sun. On this hill plant the seed as soon as the ground is warm and dry, and carefully protect the young plants from insects, and hasten their growth by the use of liquid manure.

Duke Jones (New)—This melon is an improvement on the large varieties of melons. It is very much the same shape as the *Kohl Gem*, but grows to a larger size, is of delicious flavor and a sure favorite wherever grown. Dark green rind, bright red flesh, early, prolific, very large. It has all the good qualities of a perfect melon. Try it and be convinced. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Florida Favorite—One of the largest and best in cultivation. It attains an enormous size. The flesh is a beautiful clear crimson, extending close up to the rind, which is hard, thin, and beautifully mottled light and dark green. The flesh is crimson and melting, the flavor sweet, making it one of the very best in cultivation. Try it. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Phinney's Early—Very early and of good quality, flesh deep red. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.



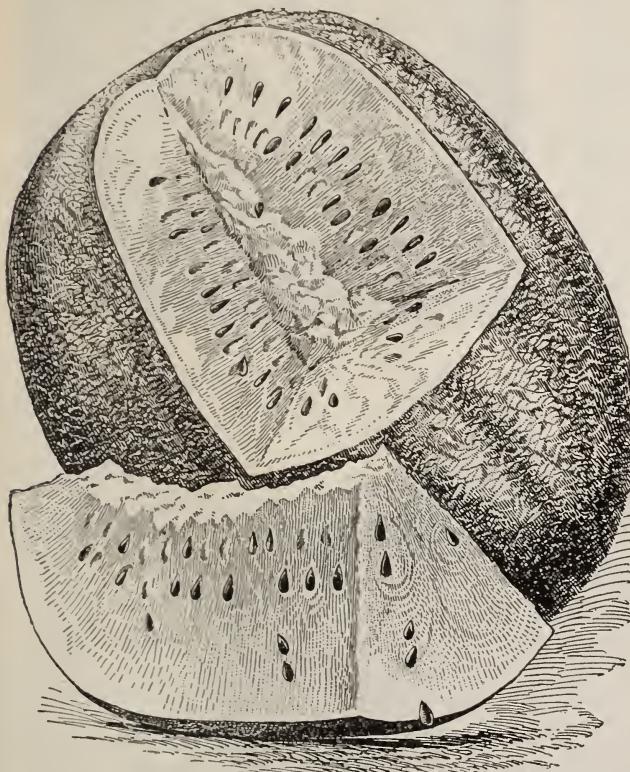
Columbus Musk Melon.

MELON—Water—Continued.

Striped Cypsy—Oblong, light green, striped with white. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

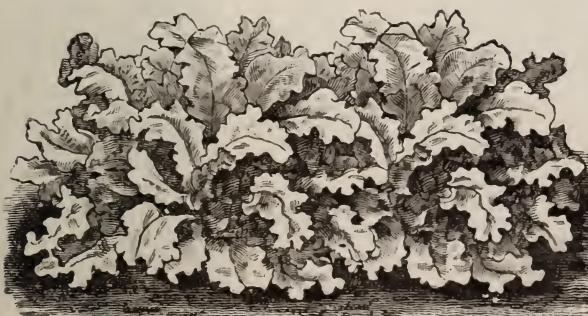
Scaly Bark—An excellent variety of great value, remains in choice eating condition from ten to fifteen days after being pulled; flesh crimson, solid, tender, and of fine flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Dark Icing—A very solid sort, with a dark, thin rind, nearly round, medium size, very delicious and a good shipper. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.



Sweetheart Water Melon.

Sweetheart—An entirely new and distinct water-melon, which is *early*, large, handsome, heavy, good shipper, long keeper, bright color, and best quality. Car loads of Sweethearts were sold at fancy prices when no other was saleable. Vine vigorous and productive, ripening its fruit early. Fruit large, oval, heavy, uniformly mottled, light and dark green rind thin but firm, flesh bright red, firm, solid, but very tender, melting and sweet. Remains in condition for use longer than any other sort. Seeds gray. This melon is sure to become one of the most popular in cultivation. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.



Mustard—southern Giant.

Kentucky Wonder—Oblong in shape, skin dark green, flesh a beautiful scarlet color, crisp, and not tough, rich and sugary flavor, always firm and never mealy. Attains an average weight of forty to sixty pounds. Not a *mannish variety*, but a real good, old-fashioned Kentucky melon that has no equal for quality. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

The Dixie—A cross between *Kolb's Gem* and the *Mountain Sweet*; but far superior to the former, being larger, earlier, and much more productive. The Dixie is extremely sweet, juicy, and tender. As a shipping melon it is unequalled. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Green and Gold—The largest early variety in cultivation; slightly oval, dark green outside, with blotches of fawn color when ripe. Flesh yellow as gold, sweet as sugar, and of unequalled flavor. Seed white with a pink shade around the edges. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Cuban Queen—Skin is beautifully striped, dark and light green, flesh bright red, solid and crisp; its great size and handsome appearance makes it a valuable market variety. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Mammoth Ironclad—Shape most perfect, skin handsomely striped, flesh beautiful scarlet, of most delicious, rich sugary flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Ice Cream—Medium size, oblong shape and thin rind, flesh bright crimson, and of fine flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Kolb Gem—Is a hybrid of *Scaly Bark* and *Rattlesnake*. The rind, though quite thin, is very tough; best keeping and shipping melon ever grown. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Black Spanish—Round, very dark green, flesh scarlet, has a thin rind, and very sugary flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Mountain Sweet—The sweetest and most delicious of all water-melons; shape long and oval, color dark green, flesh scarlet, solid, and melting, rind thin. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Mountain Sprout—A large, long shaped variety, with bright scarlet flesh. A standard variety. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Citron, for Preserving—Grows uniformly and smooth, striped and marbled with light green, flesh white and solid. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

The Kansas Stock Melon—Grown extensively in Western Kansas and Eastern Colorado. It belongs to the citrons and can be used only for preserves or stock food. Is immensely productive; will keep all winter, and can be fed to stock same as turnips and beets. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

MUSTARD.

Mustard is not only used as a condiment, but the green leaves are used as a salad, or cut and boiled like spinach.

CULTURE should be the same as that of Cress.

South Giant Curled—This mustard is very highly esteemed in the South, where the seed is sown in the fall and the plants used very early in the spring as a salad. Seeds are black. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

White London—Best for salads. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.

OKRA.

Plant late in the spring, after the ground has become warm, in hills about two and a half feet apart, and thin to three plants in a hill. Hoe often and hill up a little to support the stem.

Dwarf Green—Early and very productive, small pods. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

White Velvet—This new Okra produces pods larger than any other. They are never prickly to the touch, and are always round and smooth. It is very productive, and will out-yield any other sort. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

ONION.

SOw in the earliest opening of the spring, in light, rich soil, in drills twelve inches apart, covering the seed lightly. If large onions are wanted, thin to three or four inches. For field culture, sow from four to six pounds of seed to the acre. Onion Sets and Top Onions are set out in the spring or fall, in shallow drills twelve inches apart and four inches between them, on rich and well prepared ground.

Extra Early Red—Smaller, lighter color and more flat shaped than the Large Red; close grained and heavy. Very productive. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 65¢, lb. \$2.00.

Danver's Yellow—A thick, heavy, straw colored onion, mild flavored, yields abundantly, ripens early, and keeps equal to the best. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 60¢, lb. \$1.75.

Wethersfield Large Red—The variety mostly grown. Large size, approaching to round shape, fine grain, pleasant flavor, color deep red, very productive and keeps well. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 50¢, lb. \$2.00.

White Portugal—A mild, pleasant onion, grows to a fair size and handsome shape, but is hard to keep, being liable to gather moisture unless spread very thin. Pkt. 5¢, oz. 25¢, $\frac{1}{4}$ lb. 80¢, lb. \$2.50.

Large White Globe—A large, handsome, globe-shaped onion. The skin and flesh of a beautiful clear white. The flesh is firm and very fine grained, and exceedingly mild in flavor. It is also a splendid keeper. Pkt. 5¢, oz. 25¢, $\frac{1}{4}$ lb. 80¢, lb. \$2.50.

Prize Taker—A new variety which has proved to be an excellent keeper, of finest flavor, handsome shape, and enormous size, many single onions having been raised to weigh five pounds and over, from seed the first year. It is of the same type as those immense imported onions, which can be seen in fruit stores, and always command a very high price. The Prize Taker grows always to be a perfect globe shape, with a bright straw colored skin; the necks are very small, and the onions always ripen up hard. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 65¢, lb. \$2.00.

New Mammoth Pompeii—A very fine Italian variety. It has produced



Prize Taker.



These are the prices ruling in January; later they may be higher, owing to shrinkage.

TOP SETS.

Winter or Perennial Onions—This variety never forms a large bulb; their value lies wholly in their special adaptability for producing green onions for spring or fall use, particularly the former, soon attaining a marketable size; perfectly hardy. Qt. 10¢, gal. 25¢, bu. \$1.50.

Top Sets—This onion produces no seed; the set produces one large onion the first year, which planted the next spring, produces the top onions. Qt. 15¢, gal. 50¢, bu. \$3.00.

BOTTOM SETS.

Bottom sets are raised by sowing the seed late in the spring at the rate of about thirty pounds to the acre.

Red Bottom Sets—Qt. 15¢, gal. 60¢, bu. \$3.50.

Yellow Bottom Sets—Qt. 15¢, gal. 50¢, bu. \$3.00.

White Bottom Sets—Qt. 20¢, gal. 60¢, bu. \$4.00.

If by mail add 15¢ per quart for postage.

onions weighing from four to five pounds each. The skin is a delicate red, the flesh is close grained, and nearly white. It is of a mild flavor, and in sections where onions can be sown during autumn, this variety, if transplanted in April, will attain a larger size than any variety we know of. Pkt. 5¢, oz. 25¢, $\frac{1}{4}$ lb. 80¢, lb. \$2.50.

ONION SETS.

Onion Sets and Tops should be planted near the surface, in drills about twelve inches apart and four inches in the rows. They must have high culture for best results. These last are valuable for early use, and where onions from the seed cannot be raised the first year they are essential.

BOTTOM SETS.



PARSLEY.

Soak the seed a few hours in warm water, and sow very early in the spring. Parsley seed is slow to germinate, particularly if sown late in the season, when it often fails in dry weather.



Parsley.

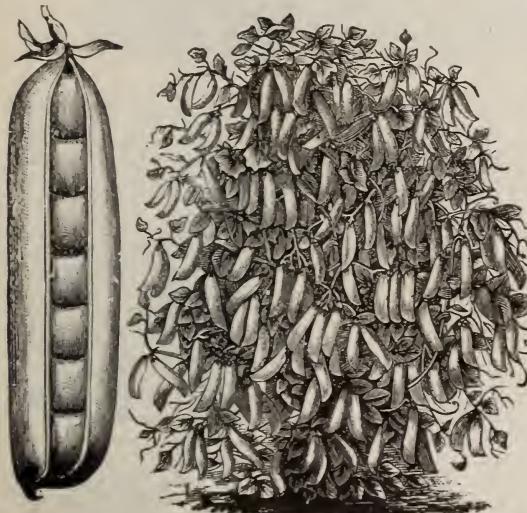
Plain—A well known variety. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, 1 lb. 50¢.

Curled or Doubled—Dwarf and tender, and beautifully crimped and curled. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, 1 lb. 75¢.

PEAS.

Plant as early as the ground will admit of being worked. Drop the dwarf kinds about twenty inches, and the taller kinds about three to four feet apart, in rows, covering the seed about two inches deep. When well up, set brush along the rows, corresponding with the height of the pea cultivated.

Postage 15 cents per quart extra on peas by mail; packets free.



First and best.

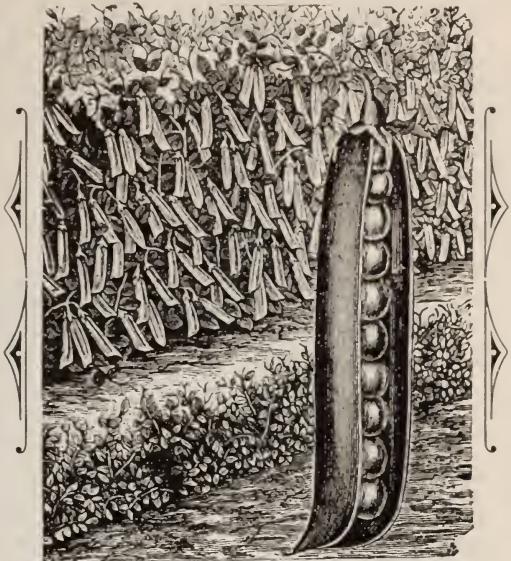
Alaska—The earliest pea known, and ninety per cent. of the pods can be gathered at the first picking. The most desirable extra early pea for market gardeners ever offered. Pkt. 5¢, qt. 15¢, gal. 50¢, bu. \$3.50.

Champion of England—Of the late wrinkled varieties, probably used more generally than any other; delicious flavor and a large bearer; usually accepted as the standard; height five feet; late. Pkt. 5¢, qt. 15¢, gal. 50¢, bu. \$3.00.

Dwarf White Marrowfat—A large, delicious, marrow pea; very prolific and a favorite with market gardeners; height two feet. Pkt. 5¢, qt. 15¢, gal. 40¢, bu. \$2.75.

Black-Eyed Marrowfat—Excellent for garden or field growing; from three to four feet high. Pkt. 5¢, qt. 15¢, gal. 40¢, bu. \$2.75.

Large White Marrowfat—Cultivated extensively for the summer crop; about five feet high and of strong growth. Pkt. 5¢, qt. 15¢, gal. 40¢, bu. \$2.75.



Champion of England.

First and Best—Very early, of excellent flavor, and ripens with great uniformity; height two and a half feet. Pkt. 5¢, qt. 15¢, gal. 50¢, bu. \$3.50.

Extra Early Kent—Early, productive, and one of the most popular and esteemed peas; height two and one-half feet. Pkt. 5¢, qt. 15¢, gal. 50¢, bu. \$3.50.

American Wonder—An early and prolific dwarf pea of most exquisite flavor; vines grow from eight to ten inches high. Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$4.50.

McLean's Little Gem—A dwarf, green, wrinkled variety, growing one foot high; very prolific, of superior flavor, and very early. Pkt. 5¢, qt. 20¢, gal. 65¢, bu. \$4.00.

Tom Thumb—Very early and prolific, growing only ten to twelve inches high; require no sticks. Pkt. 5¢, qt. 25¢, gal. 75¢, bu. \$4.50.

Yorkshire Hero—Vines stout, about two feet high; bearing at the top a number of broad pods filled with large peas, which keep a long time in season and never become as hard as most sorts; they are of fine quality, and will be preferred to any other by those who like a rich marrow-like pea. Pkt. 5¢, qt. 20¢, gal. 60¢, bu. \$4.00.

Dwarf Gray Sugar—(Edible Pods.) The most desirable of all edible pod peas; early and prolific, pods broad, and contain five or six peas; one foot high. Pkt. 5¢, qt. 20¢, gal. 60¢, bu. \$4.50.

Bliss' Ever Bearing—

A cross between the Little Gem and the Champion of England; height of vine eighteen inches to two feet; pods three to four inches long, well filled; pea very large and unsurpassed in sweetness and flavor. Pkt. 5¢, qt. 20¢, gal. 60¢, bu. \$4.00.

Stratagem—

(Wrinkled)
One of the finest peas grown; height two feet; many of the pods measure nearly five and one-half in. in length and contain as many as ten large, fine flavored wrinkled peas. Pkt. 5¢, qt. 25¢, gal. 65¢, bu. \$4.50.



PARSNIP.

Spade the soil deep and sow early in the spring in fifteen inch drills, thin four to six inches apart. Keep the ground free from weeds, and the surface open by frequent stirring with the hoe.



Long Smooth—Considered the best in cultivation; roots long, white, smooth; free from side roots, tender and sugary, and most excellent flavored. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 50¢.

PUMPKIN.

When warm weather has come, drop in hills ten to twelve feet apart. The pumpkin more properly belongs to the farm than to the garden, and is generally planted with corn.

Tennessee Sweet Potato Pumpkin—This pumpkin has no equal for making pies and custards; when cooked it has somewhat the appearance of sweet potatoes, but of more delicious taste; of medium size, pear shaped, a little ribbed, flesh thick creamy white, remarkably fine grained, dry and brittle, hardy and productive, and keeps perfectly sound until late in the spring. A general favorite wherever known. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Colden Yellow Mammoth—This truly colossal variety originated in France. Reliable growers there claim that with high culture it has frequently been grown to weigh over three hundred pounds. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Cushaw Crookneck—Flesh yellow, fine grained and sweet; good for the table. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Large Cheese—Flat shaped and salmon colored; flesh thick, yellow, fine grained, sweet and well flavored. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.

Connecticut Field—Large, productive, and best for stock feeding. Pkt. 5¢, oz. 5¢, $\frac{1}{4}$ lb. 10¢, lb. 30¢.

PEPPER.

Sow early in a hot-bed or in open ground in a seed-bed, about the middle of spring, in light, warm ground. Transplant when three inches high, one foot apart, in eighteen inch drills.



Cayenne Long Red Pepper.

Long Red Cayenne—A long, red, tapering variety, of dwarf growth, very hot and pungent. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.

Ruby King—A mild flavored pepper of large size, from four to six inches long, by three and a half to four inches thick; the plant is of sturdy, bushy habit, and each produces from six to twelve large, handsome fruits; when ripe they are of a beautiful bright ruby red color, and are always remarkably mild and pleasant to the taste; unequalled by any other variety. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.

Large Bell, or Bull Nose—A large sort of square form, mild, thick, and hard, suitable for filling with cabbage, etc. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.

Sweet Mountain, or Mammoth—A variety of nearly the same form, but much larger than the one described. Used for pickling. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.

Mammoth Colden Dawn—Of perfect shape and uniformly large size, very productive, from fifteen to twenty perfect fruits on a single plant; color bright waxy golden yellow, flavor mild and pleasant. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.

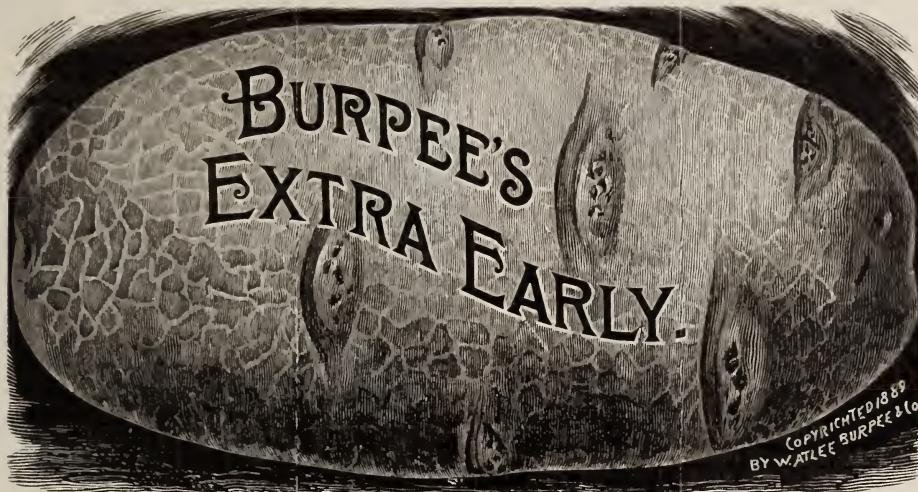


Ruby King.

CHOICE SEED POTATOES.

OUR POTATOES are all selected carefully, with a view to have each variety pure and true to name. Seed Potatoes cannot be shipped during cold weather. All orders received before it is safe to ship will be promptly acknowledged and the potatoes forwarded as soon as the weather permits. Always state whether you want them by freight or express.

This Catalogue is printed early in January, and it is impossible at that time to say exactly what potatoes will be worth three months later; therefore, we have to quote the prices we think they will be, but if any lower at time of planting than herein quoted, we will sell them lower, and assure you that we will always send you all that your money pays for.



Burpee's Early—The potatoes are uniformly of good size, entirely free from rough or scabby tubers with very few small ones; oblong in shape, very smooth, eyes set well on the surface, skin creamy white, slightly shaded with pink; the flesh is pure white, remarkably fine grained, and of the *very best table quality*. The tubers grow very compactly in the hill, with strong and vigorous foliage of an intensely dark green; it is a sure cropper, *immensely productive*, and will undoubtedly become the STAND-ARD EXTRA EARLY POTATO of the near future. By express or freight, peck 40¢, bu. \$1.00.

Early Six Weeks—The Early Six Weeks is very evidently a seedling from the *Ohio*, which it very closely resembles in every way, but is earlier, makes rather taller stalks, and appears to yield better on upland than that fine variety. It is well described as growing medium to large size; oblong to round in shape; skin light pink; flesh white; shape smooth; eyes near the surface; tubers grow close together in the hill. The potatoes grow so rapidly that, under favorable circumstances, they are fit for family use in six weeks from time of planting, and mature in between ten and eleven weeks. We find it a good yielder, and though not so extraordinary productive as some claim, still a *remarkably good cropper for so early a sort*. It revels in moist land. Peck 25¢, bu. 75¢.

Early Ohio—Is still one of the best standard early potato for this section of the country. Home grown, peck 25¢, bu. 75¢; Northern grown, peck 40¢, bu. \$1.00.

The Irish Daisy (New Late Potato)—This new late potato is a seedling of *Empire State*. It grows uniformly to good size, with shallow eyes, skin bright straw color, flesh pure white and enormously productive. The vines are very stocky and vigorous in growth, dark green, withstand the drought better than any other late potato, and are absolutely blight-proof. Peck 40¢, bu. \$1.00.

Rural Blush—An excellent variety, having a beautiful blush skin, while the flesh is slightly tinged with pink. It is of first rate quality, and cooks through dry and evenly. A very heavy yielder. Peck 25¢, bu. 75¢.

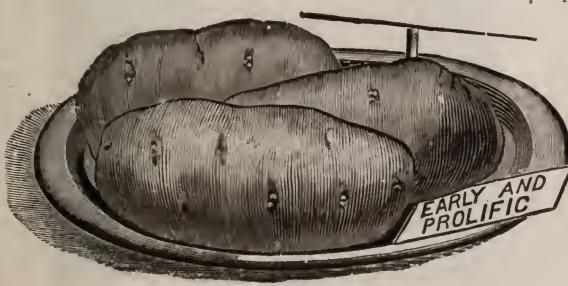
Dakota Red—The tubers are large, handsome, long wedge shaped; flesh white, eyes few, skin firm and flesh colored; quality good. Peck 25¢, bu. 75¢.

White Star—The vine is strong; the foliage is very abundant and vigorous; the tubers are produced abundantly in compact cluster; are large, oblong of a uniform size, and very handsome. The skin is white, covered with a minute russet netting; flesh white and of the finest quality. Peck 25¢, bu. 75¢.

Mammoth Pearl—A great favorite wherever tried, on account of its productiveness and handsome appearance. In shape it is oblong, skin white, eyes few and even with the surface. It ripens in August. Peck 25¢, bu. 75¢.

White Peachblow—A very vigorous grower, the vines completely covering the ground. It excels the common *Peachblow* in quality and productiveness. An excellent keeper. Peck 25¢, bu. 75¢.

Rose Seedling—Shape oblong, color pink; very large size and a great yielder. The quality is good and is an excellent keeper. Should be planted from the first to the fifteenth of June. Peck 25¢, bu. 75¢.



Early Six Weeks.

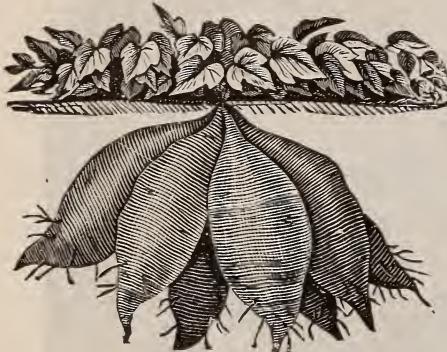
Our Seed Potatoes represent well known and tried varieties, carefully selected, and may be depended upon as being pure and true to name.

SEED SWEET POTATOES.

OUR SWEET POTATOES are all well selected for the purpose of seed, and we know they will give perfect satisfaction. We ship only in favorable weather, carefully packed, but owing to their perishable nature we cannot hold ourselves responsible for their condition on arrival at destination.

PRICES SUBJECT TO CHANGE.

The Bronze—A new and valuable variety. The vines resemble those of the *Black Spanish*; the outside skin is of a bronze color, flesh white when cooked, and very sweet. In addition to its beauty and superior quality, this is the best keeper of any known variety. Peck 50¢, bu. \$1.50.



Early Red Jersey.

Early Red Jersey—An experienced gardener and sweet potato grower has grown this new sort for several years and claims that it excels all other varieties in earliness and productiveness. Short, «chunky» in shape. Peck 50¢, bu. \$1.50.

Early Red Burmuda—The earliest and most productive; color purplish red; of large size and good quality. Peck 40¢, bu. \$1.25

Golden, or Strasburg—Sometimes called *White Bermuda*; color golden yellow, quality fine, and very early. Peck 40¢, bu. \$1.25

Southern Queen—Similar to Strasburg, color white. They grow to a large size, and are of a good table quality. Peck 40¢, bu. \$1.25.

Yellow Nansemond—A well known late variety which has become so acclimated to our climate that it is no more trouble to raise them than the common potato. Peck 35¢, bu. \$1.00.

Yellow Jersey—A fine late variety, somewhat later than the *Nansemond*, but not quite so hardy. Peck 35¢, bu. \$1.00.

Red Spanish—Color a dark red, flesh pure white and of excellent flavor; shaped like the *Jersey*, but grows larger; a good keeper. Peck 50¢, bu. \$1.50.

SWEET POTATO PLANTS.

See Vegetable "Roots and Plants."

RADISH.

SOW as early in the spring as the ground can be worked, and every two weeks for succession. Sow in twelve inch drills, and thin to two or three inches apart. Their good quality depends on their rapid growth and in having plenty of room to grow.

Early Scarlet Turnip—Small, round turnip shaped, with a small top, of very thick growth, mild and crisp. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Early Short Top Long Scarlet—The standard sort; has a bright scarlet root and small top, grows quick, very brittle. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

White Strasburg—Though not a new variety, it is one that should be largely grown. The roots are oblong, of a pure white color, very brittle, and of a mild flavor. For summer and fall use this sort will be found very desirable. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

French Breakfast—Medium size, olive shape, small top, of quick growth; crisp and tender, of a beautiful Scarlet color except near the root which is pure white. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

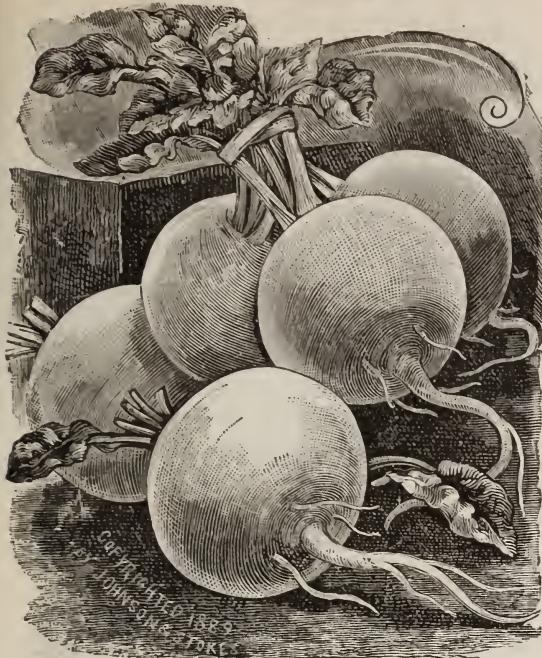
Rosy Gem—This radish has won golden opinions in all sections of the country and is the earliest radish in cultivation. Their shape is globular, with deep rich scarlet top, blending into pure white at the bottom; tender, crisp and delicious, never becoming pithy or hollow. Very desirable for the market gardener. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Felton's White Box—This radish possesses all the excellent qualities of the popular *Philadelphia White Box*, and is superior in many respects. The shape is round and handsome, leaves are few and short, hence it can be sown more thickly than any other variety. The flesh is solid and unsurpassed in flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.

Long White Vienna—*Lady Finger*. This is the fine long white radish, beautiful in shape, skin and flesh are pure snow white, crisp, and of rapid growth. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 60¢.



RADISH—Continued.



Felton's White Box.

Yellow Turnip—An oblong, turnip shaped and russet colored sort, growing to a large size, with pretty large top. The best to stand the heat and drought of summer. Pkt. 5¢, oz. 10¢, ¼ lb. 20¢, lb. 50¢.

White Turnip—Like the Scarlet in shape, pure white. It is later, and will bear the heat longer without becoming spongy. Pkt. 5¢, oz. 10¢, ¼ lb. 20¢, lb. 50¢.

Chartier, or Shepherd Radish—Of American origin, and claimed to be the best variety for all purposes in cultivation, having no equal in size, shape, and quality; as early as the earliest; remains tender and crisp from four to six weeks after they are ready for use; grows to an immense size, deep pink in color at the top, shading to a pure white at the tip. Pkt. 5¢, oz. 10¢, ¼ lb. 20¢, lb. 60¢.



Chartier.



Black Spanish.

Black Fall, or Spanish—An oblong black radish, of large size and firm texture, with dark green leaves. Pkt. 5¢, oz. 10¢, ¼ lb. 20¢, lb. 50¢.

Rose Colored China Winter—

Becoming very popular with our market gardeners. Shape half long, pink color, and flesh as solid as an apple; keeps well. Pkt. 5¢, oz. 10¢, ¼ lb. 20¢, lb. 50¢.

SALSIFY

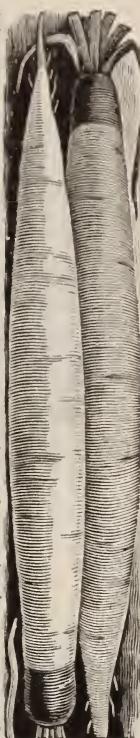
OR VEGETABLE OYSTER.

It succeeds best in a light, well enriched soil, which should be stirred to a good depth. If it is necessary to use manure, it should be very fine and well rotted, for if it is fresh and coarse the roots will grow irregular and ill-shaped. Sow early and quite deep, giving the general culture recommended for parsnip. The roots are perfectly hardy and may remain out all winter, but should be dug early in spring, as they deteriorate rapidly after growth commences. Store a quantity for winter use in a pit or in a cellar in damp earth or sand.

Large White—The old sort; roots medium size, smooth; flesh white. Pkt. 5¢, oz. 10¢, ¼ lb. 35¢, lb. \$1.00.

Mammoth Sandwich Island—

This is in every way superior to the old sort, being larger, stronger growing, and less liable to branch. Pkt. 5¢, oz. 15¢, ¼ lb. 40¢, lb. \$1.25.



Salsify or Vegetable Oyster.

SPINACH.

Spinach should be planted in very rich ground, the richer the better. Sow in drills one foot apart, and commence thinning out the plants when the leaves are an inch wide. All should be cut before hot weather, or it will be tough and stringy. For early spring use the seed should be sown early in autumn. In the North the plants will require a slight protection of leaves or straw, but in the Southern States no protection is necessary, and they will continue their growth most of the winter.



Spinach, Savoy Leaved.

Thick Leaved—The main market sort; equally good for spring and fall sowing; leaves large, thick and fleshy. Pkt. 5¢, oz. 5¢, ¼ lb. 15¢, lb. 35¢.

Savoy Leaved—A valuable variety. The leaf is wrinkled in same way peculiar to the Savoy Cabbage. Hardy and very productive. Pkt. 5¢, oz. 5¢, ¼ lb. 15¢, lb. 35¢.

Long Standing—Decidedly the best variety for spring sowing, as it stands fully two weeks longer than any other sort before running to seed. Pkt. 5¢, oz. 5¢, ¼ lb. 15¢, lb. 35¢.

Prickly, or Fall—Triangular, arrow shaped leaves; One of the hardiest, and most generally used for fall planting. Pkt. 5¢, oz. 5¢, ¼ lb. 15¢, lb. 35¢.

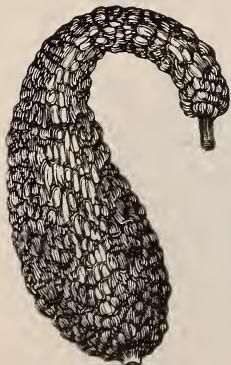
NEW ZEALAND SPINACH.



An excellent variety. Can be grown during the hottest months of the year, or in dry, arid localities, where the ordinary varieties of spinach do not thrive. It should be planted farther apart than the other varieties. Pkt. 5¢, oz. 10¢, $\frac{1}{2}$ lb. 25¢, lb. 75¢.

SQUASH.

The plants are very tender and sensitive to cold, and planting must be delayed until settled warm weather. The general principles of culture are the same as those given for cucumbers and melons, but the plants are less particular as to soil. The summer varieties should be planted four feet apart each way, and the winter sorts eight feet. Three plants are sufficient for a hill. Care should be taken not to break the stems from the squashes intended for winter use, as the slightest injury will increase the liability to decay.



Summer Crookneck.

Early Summer Crook-neck—Very early; one of the best for summer use; color yellow, shell very hard when ripe. Pkt. 5¢, oz. 10¢, $\frac{1}{2}$ lb. 20¢, lb. 50¢.

White Bush, or Patty Pan—An early, flat, scalloped variety, pure white, a favorite early sort. Pkt. 5¢, oz. 10¢, $\frac{1}{2}$ lb. 20¢, lb. 50¢.

Yellow Bush Scallop-ed—Like the White Bush in shape; deep orange in color. Pkt. 5¢, oz. 10¢, $\frac{1}{2}$ lb. 20¢, lb. 50¢.

Sibley—(Pike's Peak). A splendid variety, ripening at the same time as the Hubbard; outside shell pale green, flesh bright orange. Pkt. 5¢, oz. 10¢, $\frac{1}{2}$ lb. 20¢, lb. 50¢.

Perfect Gem—Fruit nearly round, from four to six inches in diameter, with thin, smooth shell, slightly ribbed. We think it the best intermediate kind. Pkt. 5¢, oz. 10¢, $\frac{1}{2}$ lb. 20¢, lb. 50¢.

Marblehead—Shell of more flinty hardness than the Hubbard. The flesh of a rather lighter color. Its yield and keeping properties are said to surpass that famous variety. Pkt. 5¢, oz. 10¢, $\frac{1}{2}$ lb. 20¢, lb. 50¢.

Hubbard—The best table squash yet known. It has a hard shell, flesh fine grained, dry, and of an excellent flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{2}$ lb. 20¢, lb. 50¢.

Boston Marrow—A fall and winter variety; oval form, pointed, thin rind, fine grain, salmon colored flesh, remarkably sweet and delicious. Pkt. 5¢, oz. 10¢, $\frac{1}{2}$ lb. 20¢, lb. 50¢.

Essex Hybrid Turban—A valuable fall and winter variety. Very prolific, fine grained and yellow flesh, very sweet, dry and very desirable. Pkt. 5¢, oz. 10¢, $\frac{1}{2}$ lb. 20¢, lb. 50¢.

Mammoth Chili—The "Jumbo" of all squashes, attaining the enormous weight of 150 pounds. Skin quite smooth, of orange yellow color; flesh thick. The most profitable to grow for stock. Pkt. 5¢, oz. 10¢, $\frac{1}{2}$ lb. 20¢, lb. 60¢.



Hubbard.

TOMATO.

Tomatoes do best on light, warm, not over rich soil, and success depends upon securing a rapid, vigorous, uncheckered growth during the early part of the season. Sow in hot-beds from six to eight weeks before being set out of doors, which is when danger from frost is past; when the plants have four leaves, transplant into shallow boxes or cold frames, setting them four or five inches apart; give plenty of air and endeavor to secure a vigorous but steady and healthy growth, so that at the time of setting in the open ground they will be strong and stocky. A slight check while the plants are small will materially diminish their productiveness. Set out doors as soon as danger from frost is over, but before doing so harden off the plants by gradually exposing them to the night air and by the withdrawal of water until the wood becomes hard and the leaves thick and of a dark green color.



Livingston's Beauty—Extra early, growing in clusters of four or five, very bright glossy crimson, solid, retains its color and size until late in the season. Pkt. 5¢, oz. 20¢, $\frac{1}{2}$ lb. 50¢, lb. \$1.50.

Extra Early Red—Long cultivated as the earliest variety; desirable only before others mature. Pkt. 5¢, oz. 20¢, $\frac{1}{2}$ lb. 50¢, lb. \$1.50.

Acme—One of the earliest, and very handsome variety. Pkt. 5¢, oz. 20¢, $\frac{1}{2}$ lb. 50¢, lb. \$1.50.

TOMATO—Continued.



J. & W. BURGESS.

New Stone Tomato—The New Stone Tomato ripens for main crop; is very large and of a bright scarlet color, very smooth, with occasionally a specimen very slightly octagon shaped, ripening evenly to the stem without a crack; exceedingly solid and firm fleshed; not subject to rot. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.

The Peach Tomato—The fruit resembles the peach in shape, and the resemblance is heightened not only by its peculiar delicate bloom, but also by its distinct suffused coloring and faint stripes from stem to blossom end. The tomatoes are two inches in diameter; in color are a deep rose and golden amber; all covered with delicate bloom like the blossom or furze of a fine peach. For eating out of the hand as fruit it is without a rival, the very solid, rich, meaty flesh being unequaled in delicacy of flavor, and melting in the mouth like a grape. Very productive, the fruits being borne in clusters of from four to eight; it is most excellent for preserves. Pkt. 10¢, oz. 25¢, $\frac{1}{4}$ lb. 75¢, lb. \$2.50.

Livingston's Favorite—Large and very early, color blood red, perfectly smooth, has few seeds, excellent for canning. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.

Paragon—An excellent variety; color a bright glossy crimson; large, and of an extremely fine flavor; for table use or canning it has no superior. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.

Trophy—Large, smooth, very solid, and of fine quality Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 50¢, lb. \$1.50.

Dwarf Champion—Its habit of growth is peculiar, for not only is it dwarf and compact, but the stem being thick, stiff, and short jointed, it is actually self-supporting when laden with fruit. In productiveness it is unsurpassed. It is also very early. The fruit is of a purplish pink color, always smooth and symmetrical, and the flesh solid and of fine quality. Can almost be called a tree tomato. The best variety to grow for plants for sale as they are so stocky. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 65¢, lb. \$2.00.

Upright or Tree—A French variety, standing up like a tree without support of any kind; bears abundantly; fruits large, smooth shape, bright red color, and fine flavor; very ornamental as well as useful. Pkt. 5¢, oz. 25¢, $\frac{1}{4}$ lb. 75, lb. \$2.50.

Pear Shaped Yellow—Very fine for preserving and pickling, color a golden yellow. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 65¢, lb. \$2.00.

Pear Shaped Red—Same as above, excepting color. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 65¢, lb. \$2.00.

TURNIP.

The spring crop should be got in early to bring them forward in advance of hot weather. Keep them clean of weeds. For winter use sow in August, at the rate of one pound of seed to the acre.

Red or Purple Top, Strap Leaved—Has the form and character of the White Top Strap Leaf, except in color. Best for fall sowing; flesh fine grained and rich buttery flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.

Purple Top White Globe—A variety of the Purple Top Flat Turnip, from which it originated; it is globular in form, of beautiful appearance, excellent quality, and equally desirable for table or stock. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.

Early White Flat Dutch, or Spring—Medium size, of quick growth, juicy, and of excellent quality; may be used either spring or fall. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.

Early Purple Top Munich—A German variety, remarkably handsome, very early, a bright purplish red top and a fine mouse-tail root; very distinct and valuable. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 25¢, lb. 75¢.

White Top Strap Leaved—A standard variety of the flat turnip; good marketable size, pure white, small top, with but few strap shaped leaves. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.

White Egg—A quick growing fall turnip, oval or egg shaped; flesh very firm and fine grained; an excellent table turnip. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.



Large Yellow Globe—Large, handsome, globular shaped; smooth, with rather small leaves; valuable for the table use or stock. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.

Large White Globe—A fine large white sort, particularly desirable and valuable for a field crop. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.

Long White, or Cow Horn—Flesh white, fine grained and sweet, used most in stock feeding. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 15¢, lb. 40¢.

RUTABAGA OR SWEDE TURNIP.

American Yellow Purple Top—Hardy and productive; flesh yellow, solid, sweet, and fine flavored; good for stock or table use. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Skirving's Purple Top—A superior variety hardy and productive; flesh yellow, of solid texture, large size. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

Sweet German—White, solid, and fine flavor. Pkt. 5¢, oz. 10¢, $\frac{1}{4}$ lb. 20¢, lb. 50¢.

RHUBARB, or PIE PLANT.

Sow in drills one foot apart early in the spring. In the fall or next spring transplant to three feet apart. Do not pluck the stalks until the third year.

Myatt's Victoria—Very large, rich flavor, and in high estimation. Pkt. 5¢, oz. 15¢, $\frac{1}{4}$ lb. 45¢, lb. \$1.25.



TOBACCO.

The seed should be sown as soon as possible after the danger of frosts are over; a good plan is to burn a quantity of brush and rubbish in the spring on the ground intended for the seed bed, then dig and thoroughly pulverize the earth and mix with the ashes, after which the seed may be sown and covered very lightly. When the plants are about six inches high transplant into rows six feet apart each way, and cultivate thoroughly.

White Burly—Largely used for the manufacture of cigars, plug and fine cut tobacco, as the leaf of this variety readily absorbs a large quantity of manufacturing material. Pkt. 5¢, oz. 25¢, $\frac{1}{4}$ lb. 75¢, lb. \$2.25.

Havana—The Havana type is now considered the very best, and rare prices are paid for grown crops. Pkt. 5¢, oz. 25¢, $\frac{1}{4}$ lb. 75¢, lb. \$2.25.

Connecticut Seed Leaf—Best adapted to the climate of the Middle and Northern States, as it is more hardy and endures the cold better than the tender varieties grown south. Pkt. 5¢, oz. 20¢, $\frac{1}{4}$ lb. 65¢, lb. \$2.00.



SWEET AND AROMATIC HERBS.



Anise—Biennial	Pkt. 5¢.
Balm—Perennial.....	" 5¢.
Basil, Sweet—Annual	" 5¢.
Caraway—Perennial	" 5¢.
Coriander—Annual	" 5¢.
Dill—Biennial	" 5¢.
Fennel—Perennial	" 5¢.

Most of the varieties thrive best on a rich, sandy soil, which should be carefully prepared and well cultivated, as the young plants are for the most part delicate and easily choked out by weeds. Sow as early as the ground can be made ready, in drills sixteen to eighteen inches apart. Most of them should be cut when in bloom, wilt in the sun and thoroughly dry in the shade.

Lavender—Perennial.....	Pkt. 5¢.
Majoram—(Sweet)—Annual	" 5¢.
Rosemary—Perennial	" 5¢.
Summer Savory—Annual.....	" 5¢.
Sage—Annual.....	" 5¢.
Thyme—(Broad Leaved)—Perennial	" 5¢.

VEGETABLE ROOTS AND PLANTS.



Artichoke—Jerusalem.

Artichoke—(Jerusalem). A well known vegetable produced from tubers resembling potatoes; it makes an excellent food for stock. They are planted like potatoes, and as early as the ground will admit. Peck 35¢, bu. \$1.00.

Asparagus Roots—Two years old. Per 100 \$1.00.

Chives—For flavoring soups, salads, etc. Per clump 5¢, per dozen 50¢.

Cabbage—(Early). Early Wakefield, Early Summer, and Early Winningstadt. Per 100 40¢, per 1000 \$3.00.

Cabbage—(Late). Premium, Flat Dutch, Drumhead, Drumhead Savoy, and Red Dutch. Per 100 40¢, per 1000 \$3.00.

Cauliflower—Dwarf Erfurt, and Snowball. Per 100 75¢.

Celery—Boston Market, and White Solid. Per 100 75¢, per 1000 \$6.00. Good and strong transplanted plants.



The Price for
Sweet Potato Plants
 is for the earliest plants; later in season prices are lower.

The Price for

Sweet Potato Plants

is for the earliest plants; later in season prices are lower.

COLLECTION OF CHOICE



NINE-TENTHS of the failures in flower culture come from improper treatment of the seeds and young plants. Cultural directions are given on nearly all our packets, and we urge every purchaser to study them carefully.

For \$ 1.00 you may select seeds in packets amounting to	\$ 1.25
For 2.00 you may select seeds in packets amounting to	2.50
For 3.00 you may select seeds in packets amounting to	3.75
For 4.00 you may select seeds in packets amounting to	5.00

We wish to call special attention to our strains of ASTERS, PANSIES, and SWEET PEAS. Having paid particular attention to these for years, we know that we now have the cream of these popular varieties.

ACROCLINIUM.

Everlasting flowers. Used for winter bouquets. Hardy annual. Mixed colors. Pkt. 5¢.

ADONIS.

A hardy annual with bright scarlet flowers and fine graceful foliage. Grows well in the shade or under trees. In bloom from July until frost. Pkt. 5¢.

ACERATUM.

Blooms constantly all summer in the garden, and, if removed to the greenhouse, all winter. Desirable for cut flowers for bouquets. Colors light blue and pure white. Start the seeds under glass and transplant. Hardy annual.

Mexicanum—Light blue. Pkt. 5¢.

Imperial Dwarf—White. Fine mixed. Pkt. 5¢.

ALYSSUM, SWEET.

A favorite flower for bouquets. White, very fragrant, and producing a succession of bloom through the summer. Hardy annual. Pkt. 5¢.

AMARANTHUS.

Useful in many situations, as the background of a flower border, or for making an ornamental hedge, or for a bed on the lawn. Hardy annual.

Caudatus—(*Love-Lies-Bleeding*)—Long, drooping «chains» of flowers. Very pretty for decorating. Pkt. 5¢.

Tricolor—Foliage plant; in perfection first season. Pkt. 5¢.

Princes Feather—Flowering somewhat similar to *Amaranthus Caudatus*, but in erect masses. Pkt. 5¢.

Melancholious Ruber—Blood red foliage plant. Pkt. 5¢.

ANACALLIS.

A fine trailing plant, very valuable for bedding purposes. Hardy annual. Fine colors, mixed. Pkt. 5¢.



Dwarf German Aster.

ANTIRRHINUM, OR SNAP-DRAGON.

Handsome free flowering border plants, with flowers of an interesting form, striped and spotted in many rich colors.

Tom Thumb—Mixed colors, beautifully spotted. one foot Pkt. 5¢.

ASPERULA.

A flower finely adapted to bouquets by reason of its shape, size, and delicate color; a light blue, or lavender. Half hardy annual. Pkt. 5¢.

ASTERS.

The Aster is so well known and so universally admired that it hardly needs any description. For summer and autumn flowering they are unexcelled by any class of plants known to garden culture. None furnish a wider range of colors, or more perfect flowers, and but few are easier grown. Our seed is imported from one of the best German growers.

Boltz's New Dwarf Bouquet Aster—Height eight inches; in fifteen fine colors; carmine, carmine and white, rose, dark crimson, copper rose and white, white with red center, dark blue and white, dark blue, white, light violet with white center, white turning to rose, indigo blue with white center. Pkt. 10¢.

Alyssum.



ASTERS—Continued.



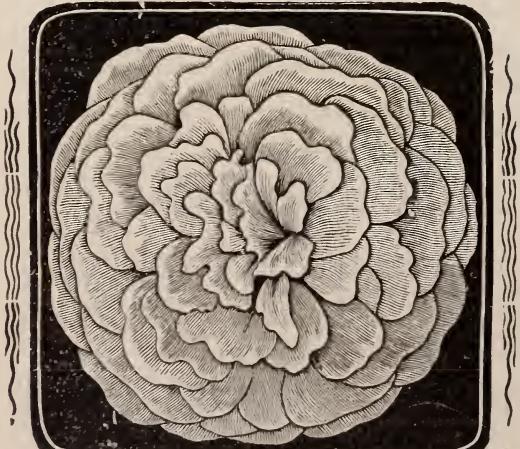
Crown Aster.

Dwarf German Aster—Heights six to eight inches. In twenty splendid colors; white, white and carmine, dark lilac, light carmine, light blue, violet, carmine, dark rose, violet and white, light red and white, peach blossom, copper brown, blood red, crimson, light lilac and white, cinnabar carmine. Pkt. 10¢.

New Dwarf Victoria Aster—Height eight to ten inches. In eleven very splendid colors; white, rose and white, violet, lilac red, light blue, light blue and white, copper carmine, flesh color, rose, crimson. Pkt. 10¢.

New Large-Flowered Rose Aster—Height 1½ to 1½ ft. In fourteen splendid colors; carmine rose, carmine rose and white, dark violet, crimson, snow white, dark rose, light rose turning to white, violet and white, light blue, dark scarlet, peach blossom, flesh color, red lilac, fiery scarlet. Pkt. 10¢.

Cocardeau, or Crown Paeony Aster—Height two feet. In eight fine colors; brown violet, dark blue, red lilac, dark red, light blue, red violet, copper rose, rose. Pkt. 10¢.



Balsam. Pure White.

Improved Large-Flowering Paeony Perfection Aster—Height 1½ feet. In twenty-three finest colors; crimson, crimson and white, dark blue, carmine rose and white, dark crimson, light blue, light blue and white, light crimson, light carmine and white, purple violet, purple violet and white, rose, rose and white, silver white, violet and white, scarlet, scarlet and white, lilac, dark rose white tipped, red violet and white, flesh color, black violet. Pkt. 10¢.

BALSAM.

One of the most beautiful and popular half hardy annuals. It is an old favorite, but so much improved in late years that it scarcely bears a resemblance to the old flower.

Carnation—Double striped like the Carnation. Pkt. 5¢.

Double White—Very desirable, and largely used by florists. Pkt. 10¢.

Camelia Flowered—Very double and one of the finest. Mixed colors. Pkt. 5¢.

French—Fine colors. Mixed. Pkt. 5¢.

BACHELOR'S BUTTON.

Showy hardy annual of easy culture, flowering freely, with a great variety of colors. Pkt. 5¢.

BARTONIA.

A showy half hardy annual, with bright yellow flowers. Will not bear transplanting. Pkt. 5¢.

BALLOON VINE.

The flowers are insignificant, but the plant is a rapid and graceful climber. Tender annual; grows six feet high. Pkt. 5¢.

CANARY BIRD FLOWER.

One of the best climbing plants, with a graceful foliage and small yellow flowers. Half hardy annual. Pkt. 5¢.

CANTERBURY BILLS.

Hardy biennials; very attractive border plants. Mixed colors. Pkt. 5¢.



Canterbury Bells.

CANDYTUFT.

A hardy annual of easy culture, and well known.

White—Sweet scented. Pkt. 5¢.

Fine Mixed—Pkt. 5¢.

Snow Queen—A new variety. Pkt. 5¢.

CATCHFLY (Silene)

Free flowering annuals, small flowers, white, red or rose. Mixed colors. Pkt. 5¢.

CACALIA.

A beautiful half hardy annual, bearing small tassel like flowers, often called Flora's paintbrush. Mixed colors. Pkt. 5¢.

CALLIOPSIS.

A very showy border plant, producing flowers of nearly every shade of color; hardy annual. Finest mixed. Pkt. 5¢.

CANNA.

Stately perennial and highly ornamental plants; will bloom first season if sown early in hot-bed. Fine mixed colors. Pkt. 5¢.

CENTRANTHUS.

A hardy annual, free flowering, and compact; very effective in beds or as an edging. Mixed colors. Pkt. 5¢.

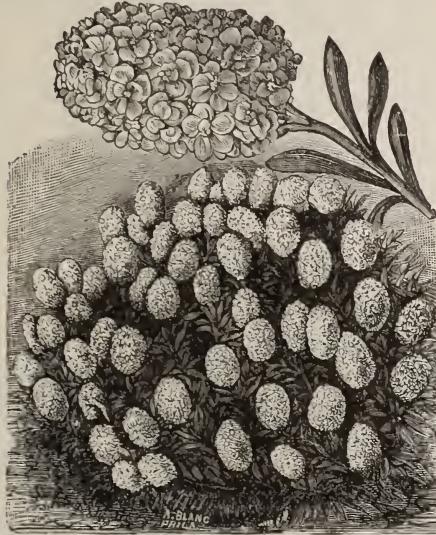
CELOSIA (Cockscomb).

Half hardy annuals, very showy, succeeds best when started in the house or hot-bed.

Cristata—Crimson dwarf. Pkt. 5¢.

New Fringed Japan—Very beautiful variety. Pkt. 5¢.

Feathered—Bright crimson in color. Pkt. 5¢.



Candytuft—Snow Queen.

CLARKIA.

A showy, hardy annual, flowering freely, but suffer in dry, hot weather. Double varieties mixed. Pkt. 5¢.

CONVOLVULUS (Morning Glory).

Well known climber. Mixed colors. Pkt. 5¢.

COSMOS.

A magnificent race of plants growing about four feet high, and in the fall literally covered with graceful flowers resembling single dahlias, but better for cutting. About two inches in diameter; rose, purple, flesh color, and pure white. As a cut flower for vases or personal wear its grace and beauty are unequalled. Easily raised from seed. If sown early, blossoms the first season. All colors mixed. Pkt. 10¢.



Cosmos Hybridus.



Cockscomb.

CYPRESS VINE.

A beautiful and popular climbing plant; half hardy annual. Mixed colors. Pkt. 5¢.

DAISY.

Everyone knows the pretty daisy. Hardy perennial will bloom the first season if sown early.

Mixed Double Varieties—Pkt. 5

DIANTHUS—Pink.

Among the most brilliant of our garden flowers. Hardy perennial.

Double Imperial Pink—Mixed colors. Pkt. 5¢.



Daisy.

ODETIA.

Very attractive, free flowering, hardy annual, deserving the most extensive cultivation.

Lady Albermarle—A beautiful new variety, with a profusion of rich carmine crimson flowers. Pkt. 5¢.

COMPRENIA.

Globe Amaranth—An excellent everlasting, or immortelle. Flowers globeshaped. Retain their shape and color when dried. Hardy annual. Mixed colors Pkt. 5¢.

CILIA.

Dwarf, hardy annual, pretty in masses, good for cutting.
Fine mixed. Pkt. 5¢.



Nest Egg Gourd.

COURDS.

A great variety of curiously formed and marked fruit. The vines are of rapid growth. It is adapted for covering screens, arbors, etc. Tender annuals.

Small Ornamental Sorts—Pkt. 5¢.

Nest Egg—Pkt. 5¢.

Dipper—Pkt. 5¢.

ESCHSCHOLTZIA.

Hardy annual, with flowers of rich and beautiful colors.

California—Bright yellow, dark in center. Pkt. 5¢.

FOUR O'CLOCK-(Marvel of Peru).

A handsome plant, making an attractive display with its many-colored flowers. The same plant will produce flowers of different colors. Half hardy annual.

Mixed Colors—Pkt. 5¢.

FOXGLOVE.

Showy and useful plants for the border. Flowers borne in tall spikes, bell or thimble shaped. Hardy perennial.

All Colors Mixed—Pkt. 5¢.



Heliotrope.

HIBISCUS.

A showy, hardy annual. Flower cream color, with rich brown center. Pkt. 5¢.

HOLLYHOCK.

A hardy perennial that is becoming a great favorite. Fine double mixed. Pkt. 10¢.

HELIOTROPE.

A well known and popular greenhouse plant, and good for pot culture in the winter. Flowers purple. Pkt. 10¢.

HYACINTH BEAN.

A splendid climber, with clustered spikes of purple and white flowers, which are followed by ornamental seed pods. Is of rapid growth. Half hardy annual. Pkt. 5¢.

LARKSPUR.

Well known. A fine variety of colors; shades of blue, red, striped, and mottled. Hardy biennial. Will bloom first season if sown early. Pkt. 5¢.

LOBELIA.

Very pretty, blooming profusely. Hardy perennial.
Erinus—Blue. Pkt. 5¢.



Myosotis. (Forget-Me-Not)

MARIGOLD.

A showy plant of handsome foliage and a profusion of flowers of brilliant shades of yellow, finely variegated and striped with dark rich colors of maroon and brown. Hardy annual.

African Mixed—Tall. Pkt. 5¢.

French Mixed—Dwarf. Pkt. 5¢.

MIGNONETTE.

A well known fragrant little annual. Sweet. Pkt. 5¢.

MOURNING BRIDE.

One of the best flowers for bouquets. A great variety of colors, from white to dark purple. Hardy annual. Pkt. 5¢.

MYOSOTIS. (Forget-Me-Not.)

Half hardy perennial, succeeding best in moist situations.

Palustris—Blue. Pkt. 5¢



Ornamental Grasses.

NASTURTIUM.

This well known annual is one of the best for trellis and arbor decoration. Flowers of a great variety of rich colors. Also excellent for vases and baskets.

Tall—Fine colors. Mixed. Pkt. 5¢, oz. 15¢.

Dwarf—Fine colors. Mixed. Pkt. 5¢, oz. 15¢.

NICELIA (Love-in-a-Mist).

A hardy annual of easy culture, bearing curious flowers.

New Double—Pkt. 5¢.

ORNAMENTAL GRASSES.

Very useful for cutting, when fresh, for summer bouquets, and also dry for working up with everlasting flowers for winter bouquets. Pkt. 5¢.

PANSY.

This favorite flower is too well known to need any description. Our «Imperial German» mixture embraces all the new varieties and colors lately introduced from Germany. Hardy annual.

Choice Mixed—Pkt. 5¢.

Imperial German—Mixed. Pkt. 10¢.

Snowflake—Pure white. Pkt. 10¢.

King of the Blacks—Pure black. Pkt. 10¢.

Bugnots—Superb, blotched and striped. Pkt. 10¢.

PETUNIA.

Sown in the spring they will produce flowering plants in June. Set the plants about eighteen inches apart. They do well sown in cold frame, hot-bed, or in open ground. Half hardy perennial.

Double Large Flowering—Extra choice. Mixed. Pkt. 20¢.

Grandiflora—Choice single. Mixed. Pkt. 10¢.

Small Flowered—Finest single. Mixed. Pkt. 5¢.

PINK.

A great variety of rich and brilliant colors, shades and marking. Hardy annual.

Double Chinese—Choicest colors. Mixed. Pkt. 5¢.

Double Japan—Choicest colors. Mixed. Pkt. 5¢.

Double Imperial—Finest colors. Mixed. Pkt. 5¢.

PORTULACCA.

A brilliant and popular hardy annual.

Double Rose—Mixed colors. Pkt. 10¢.

Single Rose—Mixed colors. Pkt. 5¢.

POPPY.

Makes a fine display among the taller flowers and shrubs. Hardy annual. Single and double mixed. Pkt. 5¢.

PHLOX DRUMMONDI.

Unrivaled for richness of color, profusion and duration of blossom. Hardy annual. Pkt. 10¢.

PAMPAS GRASS.

An exceedingly elegant and graceful variety of ornamental grasses. Pkt. 5¢.

RICINUS (Castor Bean).

A luxuriant expansive foliage plant, of tropical appearance. Plants range from five to ten feet in height. Half hardy annual. Pkt. 5¢.

SALPICLOSSIS.

Very showy bedding or border plants, with richly colored, erect, funnel-shaped flowers. The colors are beautifully marbled and penciled, purple, scarlet, crimson, yellow, blue, and almost black. They are biennial in green-house, but annual in open ground. Start the seed in hot-bed (or do well if sown in the open ground), and transplant one foot apart, into a mixture of loam and sand, with well rotted horse manure at the bottom. Bloom from August to October. Tender annual; 1½ to 2 feet high. Choice mixed colors. Pkt. 5¢.



Pansy.

SWEET PEAS.



Sweet Pea.

Sweet Peas should be sown in drills, as early as possible in spring, in rich, friable soil. Prepare the bed by thoroughly working in a large quantity of well rotted manure. Make a trench six inches deep; in this sow the seed and cover two inches deep. As soon as the plants begin to show through, fill the trench. This will secure a deep planting without the bad effect of deep covering of the seed at first, and so enable the plant to bloom continually through the heat of summer. As fast as the flowers come into full bloom or fade, they should be cut off, for if the pods are allowed to form, the plants will stop blooming. Pkt. 5¢, oz. 10¢.

Apple Blossom—Bright rose.

Butterfly—Pure white, shaded with lavender.

Duchess of Edinburg—A deep, bright red.

Ida Eckford—Creamy white, very fine.

Indigo King—Rich indigo blue.

Lottie Eckford—White, shaded with blue.

Miss Blanche Ferry—Deep pink and white.

Mrs. Gladstone—Delicate blush pink.

Queen of England—Pure white.

Scarlet Invincible—Brilliant scarlet.

Eckfords—Finest mixed. Includes all of the best colors.

Pkt. 5¢, oz. 10¢.

SENSITIVE PLANT.

A curious plant, the leaves folding together and branches drooping by being touched, affording a source of amusement for the little folks. Half hardy annual. Pkt. 5¢.

VERBENA.

Universally admired and easily cultivated, and may be treated as half hardy annuals. Our «Mammoth Verbena» is a mixture of the largest and best Verbenas known. The flowers are of gigantic size, many single flowers being as large as a 25 cent piece.

New Mammoth—Mixed colors. Pkt. 10¢.

Hybrids, Fine Mixed—Pkt. 5¢.

VIOLET.

The violet should not be wanting in any garden on account of its fragrance. A single flower will perfume a whole room. Flower blue and white, hardy perennial, sweet scented. Pkt. 5¢.

STOCKS, TEN WEEKS.

Half hardy annuals of fine foliage and beautiful colors.

Large Flowering Dwarf—Brilliant colors, mixed. Pkt. 5¢.



SWEET WILLIAM.

A useful and popular flower which has been greatly improved the last few years; hardy perennial and easily grown.

New Varieties—Mixed colors. Pkt. 5¢.

SWEET SULTAN.

Handsome annual with fragrant flowers; borne on long, slender stems. Hardy annual. All colors mixed. Pkt. 5¢.

ZINNIA.

Splendid large plant of great beauty; perfectly hardy annual, and easily transplanted.

Choice Double—Mixed. Pkt. 5¢.

Double Striped Zebra—Very showy, Pkt. 5¢.



Verbena (Mammoth).

GRAPE VINES AND SMALL FRUITS.

WE do not offer a large assortment, but every variety on our list has been tested and proved a success. No garden is complete without shrubbery and grape vines, and there is nothing which will bring better returns for the money and labor invested than Grapes and Berries.

HARDY GRAPES.

Strong Two-Year-Old Plants.

Concord—Popular; one of the most profitable and productive of all hardy grapes; bunch and berry large, black, juicy and sweet; early and hardy. Each 5¢, per doz. 50¢, per 100 \$2.50.

Elvira—This is the hardiest, finest, sweetest, and most prolific white. Each 10¢, per doz. 75¢.

Moore's Early—Bunch large, berry large, round with heavy blue bloom; vine exceedingly hardy; entirely exempt from mildew or disease. Its earliness makes it desirable for an early market; its hardiness particularly adapts it to Canada and northern portions of the United States; succeeds admirably in the South. Each 10¢, per doz. 75¢.

Worden—A splendid large grape of the Concord type, but earlier, larger in bunch and berry, and of decidedly better quality; vine hardier than that old stand-by, and in every way as healthy. Each 10¢, per doz. \$1.00.

GOOSEBERRIES.

Plant three to four feet each way, manure well, and after fruit is gathered prune out all old wood.



Industry Gooseberry.

Downing—Very large, handsome, pale green, and of splendid quality for both cooking and table use; bush a vigorous grower, and usually free from mildew. Each 10¢, per dozen \$1.00.

Houghton Seedling—Small to medium, roundish oval, pale red, sweet, tender, very good, plants spreading. Each 10¢, per dozen \$1.00.

Industry—The best English Gooseberry yet introduced, of vigorous, upright growth, and a greater cropper than any known variety; berries of the largest size, 1½ in. in diameter; of most excellent flavor, both pleasant and rich; color, when fully ripe, dark red. Each 15¢, dozen \$1.50.

CURRENTS.

This fruit comes partly with the Raspberry, but follows it several weeks. Indeed, none of the small fruits remain so long on the bushes without injury as the Currents.

The Crandall Currant—*A wonder of productiveness*, the berries ranging in size from Delaware to Concord grapes. No other small fruit approaches it in productiveness. It is absolutely proof against the currant worm and other insect enemies. Although it is bluish black in color, it has no relation to, neither has it a trace of, the odor of the European Black Currant. It is a "Native American." Each 15¢, per doz. \$1.50.

Red Dutch—An old variety. Each 10¢, per doz. \$1.00.

White Currant—Very fine. Each 10¢, per doz. \$1.00.

BLACKBERRIES.

Blackberries should be planted in rows six to seven feet apart, and three to five feet in the rows.

Eldorado—Vines vigorous and hardy; yield enormous. The berries are jet black, borne in large clusters and ripens well together. Each 10¢, dozen \$1.00.

Early King—Berries large, glossy black, fine flavor, hardy and productive. Fine for home use. Each 5¢, dozen 50¢.

Early Harvest—The berry is of fair size, good quality, early and hardy. Each 5¢, dozen 50¢.

Taylor—One of the largest blackberries grown. Fruit of the best quality, melting, and without core; very productive. Each 5¢, dozen 50¢.

RASPBERRIES.

The Raspberry should be planted in good, rich soil, in rows five feet apart and three feet in the rows.

Kansas—Originated at Lawrence, Kas. It is healthy, vigorous, and not subject to leaf blight; produces strong, healthy tips, fruit large, and as fine a berry as Gregg, and equally as good a shipper; ripens just after the Souhegan; very prolific. Each 15¢, dozen \$1.50.

Older—Very hardy, vigorous, and prolific; profitable for both home use and market. Berries sweet and rich, of large size, jet black. Each 5¢, dozen 50¢.

Cuthbert—A remarkably strong and hardy variety: stands the northern and southern summers equal to any; berries very large, measuring three inches around, conical, rich crimson. Each 5¢, dozen 50¢.

Palmer—Early and productive; berries large and of good quality, color black; the plants are hardy. Each 5¢, dozen 50¢.

STRAWBERRIES.

For field culture plant in rows four feet apart and one foot in the row. Mulch heavily in the fall, and renew every two years. Do not let plants bear the first year.

Aroma—Large, glossy red berries, very productive, and one of the best late varieties. Per 100 75¢, per 1000 \$5.00

Crescent—Medium size, very productive, good quality.

Michel's Early—The earliest of the reliable berries; size medium, shape and color handsome, fine flavor.

Warfield—Medium to large, berry of dark red color, one of the best for market and canning.

Robinson—Large, ripens late.

Per 100 50¢, per 1000 \$3.00; except where noted.

FARM SEEDS.

Choice, Selected and Recleaned

GRASSES AND CLOVERS.

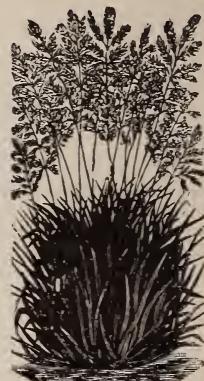


Timothy (strictly pure).

ON account of the early publication of this Cataiogue, we cannot bind ourselves to the prices given on FIELD and AGRICULTURAL SEEDS. These are market articles, and prices are subject to variation; but purchasers may depend on having them at the price ruling from the store on the day of shipment, and of the best quality, and that we always will send as much seed as the money received will pay for.

TERMS.

Cash with Order. Two-bushel bags 15c. each extra Express or Freight Charges always to be paid by the purchaser, except if to be sent by mail and sufficient money is sent to prepay postage.



Kentucky Blue Grass.

GENERAL LIST OF GRASSES AND CLOVERS. Prices Subject to Change.

CLOVERS.

Medium Red Clover—The common Clover in general cultivation; grows two to three feet high, and is the best for hay. When used alone, sow about ten pounds of seed per acre. Per lb. 15¢, bu. \$4.50.

Mammoth Red Clover—Grows four to six feet high. The variety best adapted to plowing under as green manure, on account of the enormous mass of tops and roots which it produces. Sow ten pounds per acre. Per lb. 15¢, bu. \$5.00.

White Clover-White Dutch, Trifolium Repens—The best of the Clovers for permanent pasture, but prefers moist land. Mixed with Blue Grass or Perennial Rye Grass or Taller Oat Grass it makes a permanent pasture of great grazing value. Sow six pounds per acre when used alone. Per lb. 20¢, bu. \$8.00.

Alsike or Swedish Clover—It is hardy, resists extremes of drought and wet, and is well suited to sowing on lands liable to wash, as its long, fibrous roots spread over a wide area. Per lb. 20¢, bu. \$8.00.

Scarlet or Crimson Clover—This is an annual variety, and has been found to be a very profitable crop in the Middle States, on both rich and poor lands. It is seeded at any time from June to October. Per lb. 10¢, bu. \$4.00.



Alfalfa Clover.

ALFALFA

Thrives best in a warm and friable soil, above a subsoil porous or gravelly—the opposite of a stiff, compact clay, «gumbo» or «hardpan,» or any stratum through which the roots penetrate with difficulty, although occasional exceptions to the latter are claimed as having been observed. A sandy loam soil appears to afford the most favorable conditions for Alfalfa growth where not irrigated. More than almost any other plant, it depends for its prosperity upon a subterranean rather than a surface water supply.

THE SEED

Used should be free from seeds of weeds or other plants, and may be sown either broadcast or with a drill, and should be covered, approximately, with an inch of fine soil.

THE QUANTITY

Of seed varies. If the crop is chiefly intended for seed raising twelve pounds are often found sufficient, while, if a fine quality of hay is desired, sometimes as much as thirty pounds are sown; yet, twenty pounds represent nearly the quantity used by the generality of those who raise the crop for both hay and seed. If sown in the spring, it should be as early as danger from frost is past.

Lb. 15¢, peck \$1.25, bu. (60 lbs) \$4.50.

GRASS SEEDS.

Timothy (*Herd's Grass*)—Starts late and grows rather slowly, flowering about four weeks after *Red Clover*. Sow twelve pounds per acre. Per lb. 10¢, bu. \$1.50.

Red Top—Thrives best on low lands, where it cuts a good crop of rather light hay, of fair quality. Suitable for low pastures. Sow one to four bushels per acre. Per lb. 10¢, bu. \$1.00. *Fancy*, per lb. 15¢.

Kentucky Blue Grass (*Junc Grass*)—A very valuable pasture grass; perennial, and spreads rapidly. Is sensitive to good treatment and will often drive out most other grasses. Sow two bushels per acre. *Fancy*, per lb. 15¢, bu. \$1.50.

Superior Mixed Lawn Grass—Is a mixture of the best quality of such grasses as will withstand the heat and dry weather of our summers. The soil should be put in good condition before sowing and the lawn kept free from weeds the first season. The quantity of seed required is one pound to every four hundred square feet. Per lb. 15¢, bu. (14 lbs.) \$1.50.

Cerman, or Golden Millet—Not so early as the *Common Millet*, but yields a much larger crop. Will grow from three to five feet high; the heads are closely condensed; spikes very numerous; seeds golden yellow, round, in rough bristly sheaths. The stalks are soft, and readily eaten by all kinds of stock. Twenty-five to thirty-five pounds will sow one acre. Per lb. 5¢, bu. (50 lbs.) 75¢.

Common Millet—Common Millet requires a light rich soil, and grows two and one-half to four feet high, with a fine bulk of stalks and leaves, and is excellent for forage. Sow in drills or broadcast, from May 1st until the last of July, twenty-five to thirty-five pounds to the acre. Per lb. 5¢, bu. (50 lbs.) 60¢.

Hungarian Grass—A valuable forage plant. Succeeds well on dry, light soil; withstands the drought remarkably, remaining green when all other vegetation is parched up, and if its development is arrested by dry weather, the least rain will restore it to vigor. Sow at the rate of twenty to thirty pounds to the acre. Per lb. 5¢, bu. (48 lbs.) 75¢.



Orchard Grass—This valuable grass is tender and palatable. If cut while in flower, or very soon after, it makes first-rate hay; ripe, it makes poor hay. Makes excellent pasture. Sow twenty-eight pounds per acre if used alone. Per lb. 15¢, bu. \$1.50.

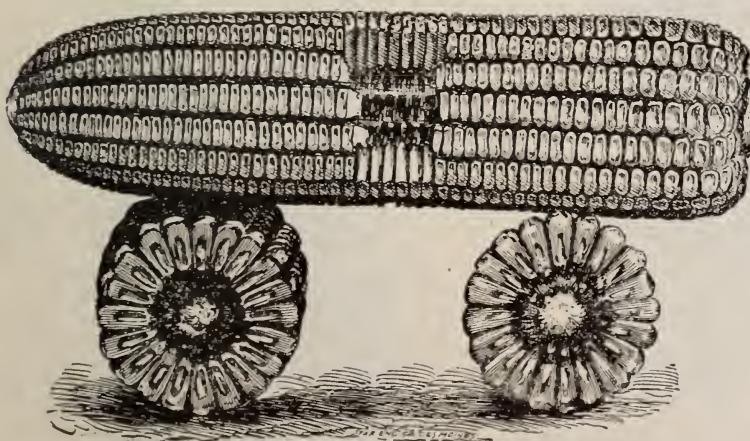
Meadow Fescue (*Festuca Pratensis*)—A valuable grass for permanent pastures, very productive and nutritious. Per lb. 10¢, bu. (24 lbs.) \$2.00.

English Rye Grass (*Lolium Perenne*)—Very nutritious, and a rapid growing variety, valuable for meadows and pastures. Per lb. 10¢, bu. (24 lbs.) \$2.00.

Sweet Vernal Grass—Useful as a mixture with other grasses on account of its early growth. It emits an agreeable odor when cut for hay. Per lb. 20¢.

CHOICE SELECTED SEED CORN.

YELLOW CORN.



Iowa Gold Mine.

Cold Gold Mine—From twelve to sixteen rows; bright golden kernels, very large, well filled to the extreme end of the cob. $\frac{1}{4}$ bu. 35¢, bu. \$1.00.

Pride of the North, or Prairie Queen—A well known variety. A ninety-day *Yellow Dent* very small cob; twelve to fourteen rows. $\frac{1}{4}$ bu. 35¢, bu. \$1.00.

Common Yellow Selected— $\frac{1}{4}$ bu. 25¢, bu. 75¢.

Iowa Gold Mine—Is as near perfection as corn can be. It is early, ripening only a few days later than *Pride of the North*; ears of good size, color bright golden yellow; grains very deep, and cob small. Seventy pounds in the ear makes sixty to sixty-two pounds shelled corn. $\frac{1}{4}$ bu. 40¢, bu. \$1.25.

Dakota Yellow Dent Corn—This is the earliest *Yellow Dent Corn* in cultivation and comes from Southern Dakota. Stalks grow from six to seven feet high, ears seven to nine inches long, very deep, soft grain, small cob; ripening usually in eighty to eighty-five days. $\frac{1}{4}$ bu. 40¢, bu. \$1.25.

Leaming—Ears good size, cob red and small, bright yellow grain; quite early. $\frac{1}{4}$ bu. 35¢, bu. \$1.00.

Early Mastodon—A new early dent variety originated in Northern Ohio. The ear is *extra large*, with large deep grains; it grows strong, rank, quick, and makes fine appearing shelled corn—two shades of white and yellow. In the American Agriculturist corn contest of 1889, it outyielded all others, making the wonderful record of 213 bushels shelled corn to the acre. $\frac{1}{4}$ bu. 30¢, bu. \$1.00.

WHITE CORN.

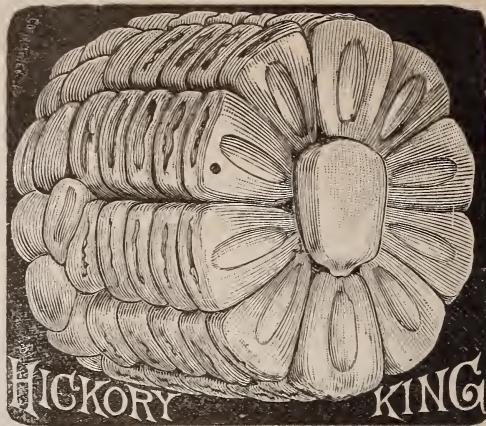
Kansas King—A cross between the *Hickory King* and *Champion White Pearl*. It has medium high and very strong stalks, and stands heavy winds and storms without being blown down. $\frac{1}{4}$ bu. 35¢, bu. \$1.00.

Hickory King—Has the largest grains, with the smallest cob, of any white corn grown; generally bears two good-sized ears to the stalk. $\frac{1}{4}$ bu. 35¢, bu. \$1.00.

Champion White Pearl—Stalks short and thick; the grains are pure white, deep and heavy: 16 rows: highly recommended. Qt. 15¢, pk. 35¢, bu. \$1.00.

Common White Selected— $\frac{1}{4}$ bu. 25¢, bu. 75¢.

Giant Fodder—In proportion to the quantity of leaf, this variety has a smaller stalk than any other fodder corn known to us. In growth it is very tall and leafy, and yields an immense quantity of fodder of excellent quality. The extraordinary productiveness of the Giant Fodder arises from the closeness of the joints, and as leaves are thrown out at every joint, the result is an increased yield of fodder over every other variety. Per lb. 20¢, postpaid; by express or freight, peck 35¢, bu. \$1.00.



KAFFIR CORN.



Kaffir Corn. White.

One of the most valuable forage plants. On very thin and worn lands it yields paying crops of grain and forage, even in dry seasons, in which corn has utterly failed on the same lands. The whole stalk, as well as the blades, cure into excellent fodder, and in all stages of its growth is available for green fodder.

White Kaffir Corn—Per peck 25¢, bu. 75¢.

Red Kaffir Corn—Per peck 25¢, bu. 75¢.

JERUSALEM CORN.

Jerusalem Corn is pronounced the best and surest grain for dry countries. It grows about three feet high, makes one large head on main stalk. The grains are pure white and nearly flat. Three pounds will plant an acre. Per lb. 5¢, bu. \$1.50.

SORGHUM SEEDS.

Sorghum or Cane is now also largely grown for stock feeding. It yields heavy and is sown extensively in dry sections where tame grasses do not grow readily. It is relished by horses, cattle, and sheep. For fodder sow two bushels per acre.

Cane Seed—For sowing. Per bu. \$1.00.

Early Amber—Popular and well known. It is the earliest variety, rich in saccharine matters; makes nice amber syrup and good sugar. Per bu. \$1.25.

Early Orange—Ten to fifteen days later than the *Early Amber*, a strong grower and produces more syrup; an excellent sugar plant. Per bu. \$1.25.



Kaffir Corn. Red.

MISCELLANEOUS FARM SEEDS.

PRICES subject to market fluctuation. Two-Bushel Bags 15c extra each. Express or Freight Charges always to be paid by the purchaser. If wanted to be sent by mail postage must be added at the rate of 8c. per pound.

BARLEY.

Barley succeeds best on lands more sandy and lighter than those adapted for wheat. It is sown in the spring or fall. Unless it is intended for seed, it should be cut before fully ripe. Product from thirty to fifty bushels per acre. Bu. (48 lbs.) 75¢.



BUCKWHEAT.

Buckwheat should be sown about the middle of June, broadcast, at the rate of from one to three pecks per acre. The average yield is from twenty-five to thirty bushels per acre. It should be threshed as soon as dry. If allowed to stand in mass it quickly gathers moisture, therefore due attention should be given to handling it promptly.

Japanese—Peck 35¢, bu. \$1.00.

Silver Hull—Peck 35¢, bu. \$1.00.

Common—Peck 30¢, bu. 90¢.

BROOM CORN SEED.

Missouri Evergreen—A favorite in Kansas, Nebraska, and Missouri. Grows to be a good length, and if cut at the proper time has good color. Peck 35¢, bu. (46 lbs.) \$1.00.

California Golden—An excellent standard variety; grows a very fine bush of good length, and is free from the large center stem. Peck 35¢, bu. \$1.00.

Dwarf Broom Corn—Grows from three to four feet high, with straight, smooth tops; principally used for whisks and brushes. $\frac{1}{4}$ bu. 50¢, bu. \$1.50.

CASTOR BEANS.

This crop is raised almost entirely, in this country, in Southwestern Missouri and Kansas. Pays well at fair prices. Is a good fertilizer, and is a good crop to follow flax. Peck 65¢, bu. (46 lbs.) \$2.00.

FIELD BEANS.

Plant after danger from frost is past, in dry, light soil. Best crops are grown in rich soil, but beans do well in ordinary soil, and should be grown in many sections to a greater extent than they now are. They are a most valuable food crop. Hoe frequently when the plants are dry, never when wet.

Medium White—Hand picked. Peck 60¢, bu. (60 lbs.) \$1.75.

White Navy—Hand picked. Peck 65¢, bu. \$2.00.

FIELD PEAS.

Field peas are sold for marketing dry, for split peas or fodder for stock. Sow one and one-half to two bushels to the acre.

White Canada Field—Peck 50¢, bu. (60 lbs.) \$1.50.

COW OR SOUTHERN PEAS.

Sow from one and one-half to two bushels to the acre.

Black Eye—Round, oblong; creamy white, with a large black eye. Peck 65¢, bu. \$2.00.

Clay Colored—Large seed of a blue clay color. Peck 65¢, bu. \$2.00.

Whip-Poor-Will—Seeds are large, speckled brown in color. Peck 65¢, bu. \$2.00.

FLAX SEED.

This crop has become very popular in Southwestern Missouri and Kansas. It is a quick crop, being sown in April and harvested in July, is always of ready sale at fair prices. Peck 40¢, bu. (56 lbs.) \$1.50.

HEMP.

If raised for manufacturing, must be sown broadcast, at the rate of one-half bushel to the acre; if for seed, it should be planted in hills four feet apart, and the plants thinned out to three or four most vigorous stems in each hill. Peck 65¢, bu. (44 lbs.) \$2.00.



PEANUTS.

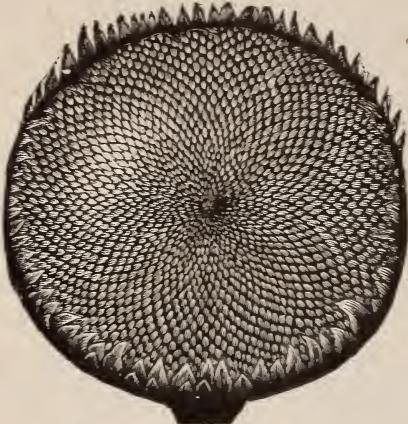
The peanut thrives and produces best on a light, sandy, tolerably fertile soil. They may be planted in the pod, or shelled, two in a hill; it is best to drop about four in a hill on the level ground, the rows being laid off three and one-fourth feet wide, and the hills two feet asunder; cover them two or three inches. The white variety is generally preferred. Per lb. 15¢.

RYE.

We will sell this grain, to a large extent, early in the fall for pasture. Write us for prices as soon as crop is harvested. Per bu. 60¢.

MISCELLANEOUS FARM SEEDS.—CONTINUED.

SUNFLOWER.



Mammoth Russian Sunflower.

The Sunflower is rapidly acquiring a reputation as a valuable farm crop. Its seeds are superior food for poultry (said to improve the meat), and it has yielded forty bushels to the acre. The plant affords sufficient protection from malaria, and should be liberally planted in hedges about the house, and in all districts where that insidious disease prevails.

Mammoth Russian—The best in all respects for a farm crop. Lb. 10¢, bu. (24 lbs.) \$2.00.

SEED OATS.

Change your Seed Oats every few years and the investment will pay you well.

Red Rust Proof—Heavy grain, very prolific and entirely rust proof. Pk. 20¢, bu. 50¢.

White Russian—Very prolific, and with ordinary cultivation will yield one hundred bushels per acre. Is extremely hardy. Northern grown, per bu. 50¢; home grown, per bu. 40¢.

Common White—Home grown, per bu. 40¢.

Common Black—Home grown, per bu. 40¢.

BIRD SEED.

If by mail, 8 cents per pound must be added for postage.

Our Mixed Bird Seed is put up according to the best formula for the health of the birds, from the cleanest and choicest seeds.

Special prices on large lots.

Mixed Bird Seed	Per lb. 7¢
Canary Seed	" 7¢
Hemp Seed	" 5¢
Rape Seed	" 7¢
Cuttle Fishbone	" 40¢

TREE, FRUIT, AND HEDGE SEED.

If by mail, 8 cents per pound must be added for postage.



Apple—Apple Seed does not reproduce the same varieties, but an inferior, though hardy stock, and upon these seedlings are grafted the finer varieties. The seed may be planted in the fall in rows two feet apart, or they may be planted in early spring, but in that case the seed must first be mixed with damp sand and frozen, after which care must be taken that they do not become dry before planting. Pkt. 5¢, lb. 30¢, bu. \$6.00

Peach—Plant three inches deep in the fall, in rows three feet apart, or if planted in spring, crack the pits and plant the kernels only. Peck 35¢, bu. \$1.00.

Catalpa, Hardy—Of all trees that have been suggested as adapted to the formation of timber plantations, the Catalpa Speciosa stands pre-eminent. Its exceedingly rapid growth, its adaptation to almost all soils and situations; its extraordinary success on the western and northwestern prairies, the ease and certainty with which it is transplanted, the almost imperishable nature of the wood, to say nothing of the handsome appearance of the tree and the unrivaled beauty of its flowers, all point to the Catalpa as the tree to plant. Oz. 10¢, lb. 80¢.

Walnut, Black—One of our most valuable varieties for timber planting; a very large tree of rapid growth. It delights in a rich soil and luxuriates in our prairie loams or timber land clay. Hulled, per bu. 75¢, un-hulled, per bu. 50¢.

Locust, Yellow or Black—This variety is noted for its rapid growth of hard and durable timber. It is hardy and succeeds well in many parts of the country. It is worthy of a trial in any locality where it has not been tested. Oz. 5¢, lb. 30¢.

Locust, Honey—A large and handsome tree; the trunk and branches are generally beset with long and formidable spines, on which account it has been employed as a hedge plant. The wood is heavy and affords excellent fuel, but is not considered durable as timber. Has done well in our State wherever planted. Seeds ought to be scalded before planting. Oz. 5¢, lb. 30¢.

Osage Orange—A native of Texas, but has been generally introduced over the country from its extensive employment as a hedge plant. Proper time to sow is in April or May. Oz. 5¢, lb. 30¢, bu. \$6.00.

SEED DRILLS, CULTIVATORS, ETC.

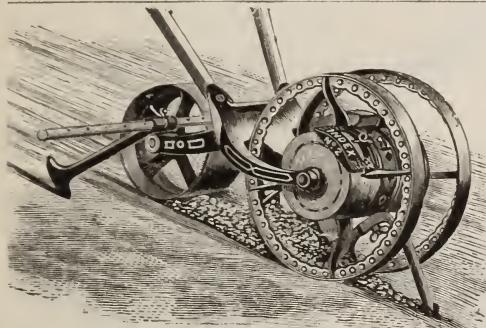
SPACE will not permit illustrating and describing all the «Planet Jr.» Tools, but we will gladly send a fully illustrated catalogue to any who desire it; and we can supply promptly anything ordered. «Planet Jr.» goods are standard machines and the best on the market. In sending your orders to us you can rely on getting bottom prices.

A fine Hill Dropping Seeder, with hosts of friends, and for 1889 it is greatly improved in many particulars. This Drill will sow in a continuous row, in the ordinary way, with the greatest regularity; but its distinctive feature is that it will drop neatly in hills, either 4, 6, 8, 12 or 24 inches apart. The wheel is 15 inches high, with a broad face. It is changed in a moment from hill dropping to drill work, sows equally well whether the hopper is full or contains only a paper of seed, and will not injure delicate seeds, such as radish, cabbage, etc., which are so often peeled or crushed by imperfect seeders. The plow is adjustable and opens a very narrow furrow which is a great advantage for after cultivation.

“PLANET JR.” No. 3

Hill Dropping
Seed Drill

PRICE \$9.00



The “PLANET JR.” No. 1 Combination Drill and Wheel Hoe, Cultivator, Rake and Plow.

This has long been the most popular combined tool made. As a seed sower it is identical with the No. 2 «Planet Jr.» Drill, except in size, and has all its merits, its strength, durability, ease of operation and perfection of work.

It has a complete set of cultivating tools, and all its work is rapid, easy, perfect and delightful. When used as a drill the seed is sown with great regularity and at uniform depth, regulated at pleasure. The hopper holds one quart. From a drill it is changed to its other uses by unscrewing but two bolts, when any of the attachments shown in the cut can be quickly made ready for use.

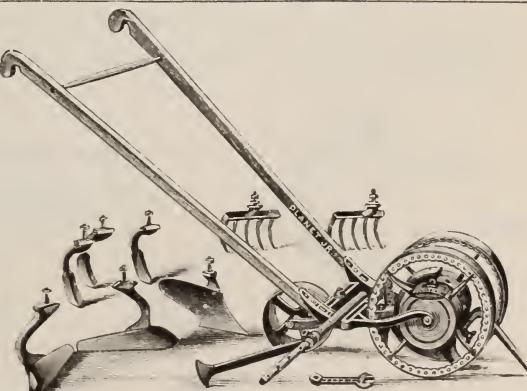
Price, \$9.00.

The “PLANET JR.” No. 2 Seed Drill.

This tool is known the world over. It holds two and one-half quarts.

The drill sows in an even, regular stream, whether there is much or little in the hopper. The opening plow, being directly between the wheels, follows all irregularities of the ground, is adjustable, and once set, opens the furrow at a uniform depth, and the seeds are deposited in a very narrow line. The machine is extremely simple; no agitators, belts or gearing.

Price, \$6.50.



The “PLANET JR.” No. 4

Combined Hill Dropping Seeder
and Single Wheel Hoe

Price, complete, . . . \$10.00
as a drill only, 7.00



This is exactly the same style of seeder as the No. 5 «Planet Jr.» Hill Dropper. It is smaller in capacity, though still of good size, holding two quarts. It drops in hills at 4, 6, 8, 12 and 24 inches apart and in drills any thickness, handling the smallest paper of seed perfectly, and is simple, durable and very light running. **Throws out of gear instantly by simply raising the handles.** The index is accurate, plain and easily set. The drill is detached and the tool frame substituted by moving but one bolt. It then becomes one of the most admirable Single Wheel Hoes of the «Planet Jr.» family. It has a fine garden plow, two new-style hoes, perfect shape, three delightful cultivating rakes, new form, and made specially to fit 6, 9, 12, 14 and 16 inch rows, three cultivator teeth and a practical leaf guard.

"PLANET JR." No. 11

Double Wheel Hoe,
Cultivator, Rake
and Plow.

Price, \$8.00.



No. 12. The same implement, with the following tools only; 2 hoes, 4 cultivator teeth, and 2 plows... **Price \$6.00**

No. 13. The same implement, with one pair of hoes only..... **Price \$4.00**

This latest and best Single Wheel Hoe, improved for 1899, has an 11 inch wheel, with broad face, and a conveniently arranged and a very full set of tools, several of them being of new, special design, such as have been found to perform Wheel Hoe work in the very best manner. It is very light and strong and easy running; has three more tools than the old Planet Jr. and does a much greater variety of work and does it better. Has adjustable handles, and frame, especially adapted for quick changing of teeth. It is a most perfect Wheel Hoe for market gardeners or for private places.

The frame changes in height, and the wheel to the other side of the frame, when both sides of the row can be hoed at one passage.

No. 16. The same implement as described, with the following tools; 2 hoes, 3 cultivator teeth, 2 rakes, 1 plow.

Price **\$5.00**

No. 18. The same implement, with one pair hoes only..... **Price \$3.00**

"PLANET JR." No. 15

Single Wheel Hoe,
Cultivator, Rake
and Plow.

Price, \$6.00



"DIAMOND"
Double Wheel
Cultivator.

Price, Complete

\$5.00.



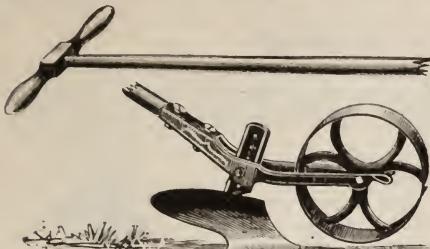
"DIAMOND" Single Wheel Cultivator. Complete, \$4.50.

Our «Diamond» Single Wheel Garden Cultivator has an entirely new arrangement of frame which is neat, strong and compact. This Cultivator we are prepared to furnish, with five reversible points, with hoeing attachments or weed cutters, and right and left hand plows. It can be used for hillling, furrowing or covering. The hoeing attachments or weed cutters can be arranged to hoe to or from the plants, and can be set at any angle the operator may desire. In using as a cultivator one or more teeth may be used as the different work may require. The wheel adjustment can be set to run deep or shallow, and the handles are also adjustable.

Our "Diamond" Double Wheel Garden Cultivators have the advantage over single wheel cultivators of being able to work both sides of the row at once. The opening and closing device permits the operator to set his machine in an instant to any desired width. The controlling lever is placed between the handles near the top, and by simply moving to the right or left the tool is at once set just where wanted. It is made with six reversible points, hoeing attachments or weed cutters, right and left hand plows and leaf guards or vine lifters. In working both sides of the row these guards are on the inside of the wheels, but can be changed to the outside when working between rows. The handles can be easily adjusted.

Matthews New Universal Model Combination Drill

NEW UNIVERSAL HAND WHEEL PLOW.



This labor saving implement is one that commands itself to all gardeners. It can be used to prepare the ground, to furrow out, to cover, and to cultivate. The mould board is of steel, polished and tempered.

Price, \$1.75.

MATTHEWS DOUBLE WHEEL DRILL,

With Cultivating Attachments.

May be used as a single or double wheel Drill or Cultivator. The change can be made in a few minutes time.

Price, complete, \$9.00.

MATTHEWS GARDEN GEM DRILL.



This has been perfected to meet the demand for a low priced drill. It has all the essential qualities of the Matthews principle, even to embodying Seed Dial and Indicator, from exactly same patterns as those used on the larger and more expensive drills. This drill does not have the new seed cut-off, but the Agitator can be checked same as in the larger drills.

Price, boxed, \$5.00.

QUEEN OF THE GARDEN CULTIVATOR.

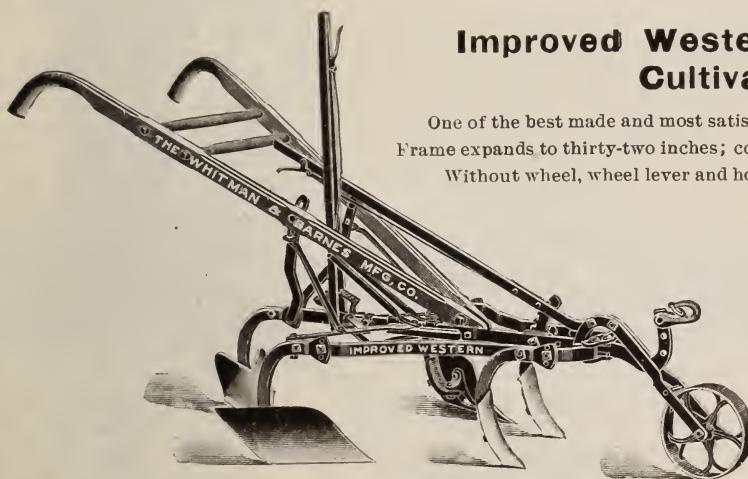
With one hoe.....\$3.00

With weeder and mouldboard.....3.75

Improved Western Five-Tooth Cultivator.

One of the best made and most satisfactory Cultivators on the market. Frame expands to thirty-two inches; contracts to eight.

Without wheel, wheel lever and horse hoe attachments, \$4.50.



Complete,

\$6.00

“PLANET JR.” Harrow and Cultivator

Price, plain . . . \$5.40

“ with Wheel, 6.65

“ complete, 8.00



Probably no other cultivating machine is so widely known as the «Planet Jr.» Combined Horse Hoe and Cultivator, for it is in use throughout the civilized world. It is so strongly built as to withstand incredible strain, yet it is light and easy to handle.

GARDEN PLOWS.



Eight inch plow, steel beam.....\$ 6.00

Ten inch plow, steel beam.....8.00

Twelve inch plow, steel beam.....10.00

Broadcast Hand Seeders.

HAND SEEDERS for sowing all kinds of CLOVER AND GRASS SEEDS, WHEAT, OATS, RYE, HEMP, ETC.

GRANGER HAND SEEDER.

Sows on an average six acres per hour at common walking gait. A person entirely unused to sowing by hand can use this machine with perfect success and do much better work than can possibly be done by hand, and as the seed is distributed so much more evenly there is a great saving in seed over hand sowing.

Price \$2.50.

The Improved Switzerland Seed Sower.

All farmers well know the difficulty of evenly casting small seed directly from the hand, yet thousands of them do not feel justified in putting a considerable amount of money in the expensive devices which are for sale; their needs being a light, simple, durable, efficient and reasonable priced apparatus that is always ready. The Switzerland supplies this want.

Price \$1.00.



No. 1. Each, \$1.25.

THE LITTLE GIANT HAND BROADCAST SEED SOWER.

The Little Giant will save one-half the labor and one-third the seed over hand sowing, besides greatly increasing the crop by the more equal distribution of the seeds. Man or boy can sow on hilly, stumpy, stony and rough, as well as on clean and old land, perfectly even any quantity, (1 quart to 3 bushels) per acre, of Clover, Timothy, Millet, Hungarian, Flax, Wheat, Rye, Barley, Oats, Corn, Peas, Orchard Grass, Blue Grass, Red Top or other seed, fertilizer and ashes, with ease to the operator. Will sow at a round 30 to 50 feet. A man walking at a rate of 3 miles per hour will sow 90 acres of wheat or 65 acres of clover seed in a day of ten hours.



No. 3. Each, \$1.75.

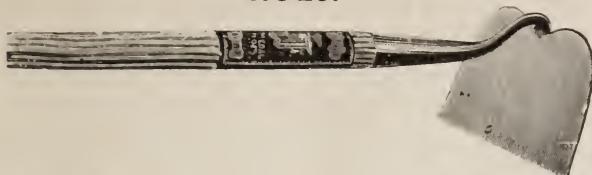
Cheapest Crank Seeder on the market.

SPADES.



Socket Cast Steel, Polished..... Each, \$1.00
Diamond. Solid Cast Steel..... " .60

HOES.



Sunflower Socket Hoe..... Each, 30¢
Riveted Socket Hoe..... " .25¢

HAND WEEDERS.

Excelsior—A very useful little tool for weeding seed beds, flower beds, stirring the ground, etc..... Each, 15¢

Lang's Hand Weeder—This weeder allows use of hand while working. A very handy tool..... Each, 20¢

SPADING FORKS.

Four Tine, D Handle, Strapped Ferrule..... Each, 65¢

HAND CORN PLANTERS.

Empire Rotary—One of the best and most durable planters made. Extra dirk with each planter..... Each, \$1.00

HAND CORN SHELLERS.

These shellers are strong, simple and durable. Will shell easily and rapidly. They will also separate cob from the shelled corn. Every sheller guaranteed to give entire satisfaction.

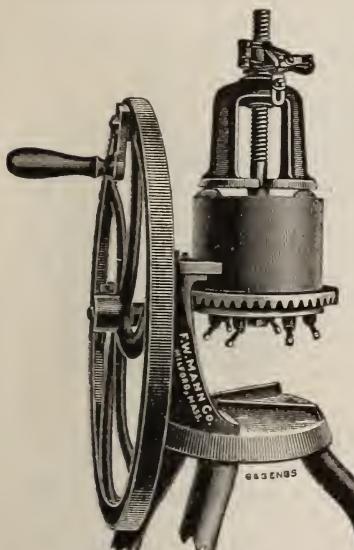
Each..... \$2.25

CORN KNIVES.

Each..... 25¢

RAKES.

Solid Steel, Twelve Tooth..... Each 40¢
Malleable, " " " .25¢



No. 4 B. M.

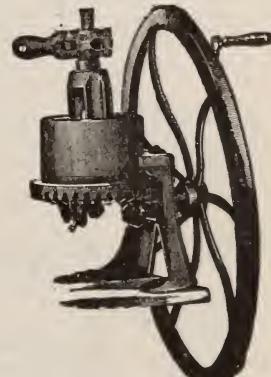
Mann's Popular Bone Cutter.

With only a dozen Hens it will pay you to buy a Mann's Bone Cutter.

GREEN CUT BONE

When Fed to Your Poultry

Will Double the Number of Eggs.
Will stop Egg eating.
Will stop feather picking.
Will prevent roup.
Will make the eggs more fertile.
Will make Eggs hatch vigorous chicks
Will invigorate the whole Flock.
Will make little chicks grow larger.
Will make little chicks grow faster.
Will mature Broilers earlier.
Will reduce the grain bill one-half.
It is better than medicine, cheaper
than grain.



No. 1 B.

PRICE LIST.

	Weight.	Price.
No. 1 C.— (With Crank Handle)	30	\$ 6.25
No. 1 B.— (With Balance Wheel)	55	8.75
No. 1 B. M.—(With Balance Wheel, mounted on Iron Stand)	80	12.50
No. 4 B.— (With Balance Wheel)	75	15.00
No. 4 B. M.—(With Balance Wheel, mounted on Iron Stand)	110	18.75
No. 2— (Standard Bone Cutter)	140	23.00

SWINGING FEED TRAY for POULTRY.

Saves All waste of Food.

Hens cannot scratch the food out or the dirt in. Weight of hen tips the tray and throws her off. Upper rod tips up also if hen tries to roost over pan. Legs fasten anywhere.

Price Each, \$1.25

PATENT STONEWARE DRINKING FOUNTAIN FOR POULTRY.

They keep the water clean and cool, and poultry from getting wet, are easily filled and never tip over or get out of order. The best and cheapest fountain on the market.

Price, one-half gallon size..... Each, 25¢
One gallon size..... " .40¢

SPRAYING PUMPS.

CATALOGUE GIVING FULL DESCRIPTION AND DIRECTIONS
FOR SPRAYING WILL BE MAILED ON APPLICATION.



No. 550.

Deming Barrel Spray Pump.

The outfit shown in the accompanying cut makes a first-class orchard sprayer at a low cost. It has an adjustable attachment or base to fit the top or side of any barrel. We do not furnish the barrel with the outfit as this would simply add to the freight charges. We furnish a wooden base upon which the pump rests, so that all that is necessary to fit up the outfit is to cut a 10x10 inch opening in the top of an oil or whiskey barrel, place in the pump, and the sprayer is ready for use.

PRICE LIST.

No. 550—Pump only.....	Price, \$5.50
Outfit A —Pump as above, with 12½ feet of $\frac{1}{2}$ -inch hose, Bordeaux nozzle and pole connection.....	Price, \$7.50
Outfit B —Pump as above, with two 12½-foot sections of $\frac{1}{2}$ -inch hose, Bordeaux nozzles and pole connection.....	Price, \$10.00

Success Knapsack Sprayer.

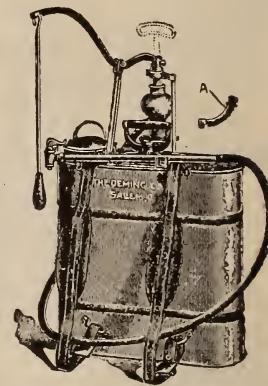
The new improvements recently made to the Success Knapsack Sprayer entirely obviate all objections to the knapsack pattern. As now made, this sprayer can be used either as a knapsack or bucket sprayer, the illustration as here given showing its use as a knapsack. To be used as a bucket sprayer the handle and lever are removed, and the extra handle with which the outfit is provided is placed in position as shown by the dotted lines.

No. 675..... Price, \$9.50



Seven foot section of hose, and couplings with pole connection for spraying tall trees.

Price..... Each \$1.25



No. 675.

SUCCESS

LAWN SPRINKLER.



Neat and durable. It throws an umbrella shaped spray from 15 to 30 feet in diameter, according to pressure. It will work on any pressure.

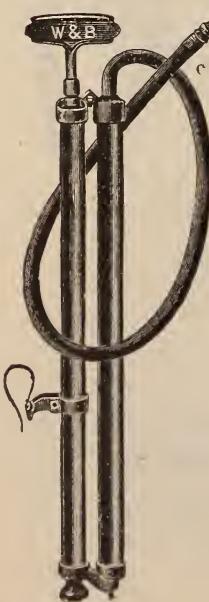
Price..... Each 75c

SCOLLAY'S Rubber Sprinkler.

For floral work, window, gardening, and sprinkling clothes.

Price, large size... 85c

Small size..... 50c



Bucket Spray Pump.

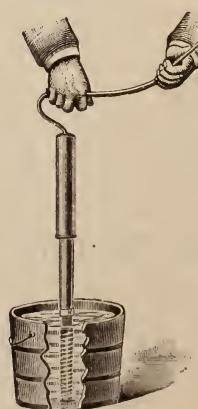
The "W. & B." Spray Pump is made of brass, and therefore impervious to the action of acids and liquids, and will not rust nor corrode. Pump is placed directly in water or other liquid, insuring a perfect suction. The pump can be used for washing windows, buggies, etc., and for general spraying purposes.

Price..... \$3.00.

CRESCENT Automatic Spray Pump.

This is a bucket pump, with galvanized amber brass cylinder, metal valves, brass spiral springs, and saucer shaped anti-clogging foot.

Price, without pail. \$1.50



POULTRY SUPPLIES, STOCK FOOD, Etc.

POULTRY SUPPLIES.



COLUMBIA EGG FOOD.

This food will greatly increase egg production, and keep poultry in a healthy condition. For young fowls it supplies all necessary material for forming bone, muscle and feather.

Price, 1 lb. package 25¢, 2½ lb. package, 50¢.

GROUND BONE.

Selected Coarse Ground Bone, per lb. 3¢, per 100 lbs. \$2.50
Good Coarse Ground Bone, per lb. 2½¢, per 100 lbs. \$2.00

CRUSHED OYSTER SHELLS.

Advantages gained by the use of it:

It acts as a grit and prevents "cholera."
It keeps the poultry healthy.
It makes hens lay more.
It prevents soft shells.
It makes the shell strong enough to carry without breaking.
It contains many essential compounds of the egg.
It makes eggs larger and heavier.

Price, per lb. 2¢, per 100 lbs. \$1.25.

MICA-CRYSTAL GRIT.

Poultry raisers have long desired to secure a sharp, clean grit of regular size and superior quality as a dexter for their poultry. Mica-Crystal Grit is prepared with great care, and guaranteed to be of uniformly even size and quality.

Price, per lb. 2¢, per bag (100 lbs.) \$1.25.

ALCORN'S CHICKEN CHOLERA POWDER.

Cures cholera, indigestion, diarrhoea, and roup, and will increase the quantity of eggs.

½ lb. package 25¢, by mail 40¢.

POULTRY INSECT DESTROYERS.

Challiss' Lice Killer.

½ lb. package 25¢, 1 lb. 40¢, 3 lbs. \$1.00.

If by mail add 1¢ for every ounce.

Challiss' Lice Killer Soap.

Each 10¢, by mail, 15¢.

Challiss' Liquid Lice Killer.

Put up in pint bottles, and by mixing with water will make one gallon of the best Lice Killer. Not mailable.

Each 25¢.

STOCK FOOD.



LINSEED OIL MEAL.

Experience has proven, that of all feeding substances, Oil Cake Meal stands without an equal. To farmers it is especially valuable. It is the greatest flesh former, milk and butter producer in use, and on fair test will prove to be the most economical cattle food a farmer can use.

Price, per 100 lbs. \$1.50; per ton \$25.00.

LUMP ROCK SALT.

In lumps from 25 to 200 lbs., lasts four times as long as fine salt. Nature's own way of salting stock. Healthiest and most convenient way of salting. Dairy cattle should have access to salt every day. Try it in place of common fine salt and note the result.

Price, per 100 lbs. 60¢; per ton \$10.

INSECTICIDES.



HAMMOND'S SLUG SHOT.

Slug Shot is an impalpable powder, a combination of insecticides, poisonous to insects preying upon vegetation, affecting all classes of insect life, so that they either die or leave for parts unknown.

It kills the black fleas on cabbage, turnips, beets, radishes and egg plants. Apply by dusting over the plant. It keeps the striped bugs from all vine crops; cucumbers, melons and squash.

It is especially destructive to cabbage worms. Slug Shot not only acts as an insect destroyer, but it will be found to be an excellent fertilizer. It contains nothing injurious to domestic animals, nor is it hurtful to the person applying it.

Price, per lb. 10¢; 5 lbs. 35¢; 10 lbs. 60¢.

Prices for larger quantities furnished. Add 10¢ per lb. for postage if wanted by mail.

FERTILIZERS.

FOR THE GARDEN, FARM AND LAWN.

Commercial Fertilizers are sure to come into more general use in the West as fast as they are tried. Their quick and direct action commend them to the gardener and farmer. The enormous quantities sold in the East gives the best evidence of its utility and value. The quantity to use per acre depends on the crop to be cultivated and cultivation of soil.

FINE RAW BONE MEAL.

A first class article and excellent for lawns, grass lands and wheat.

Price, per 100 lbs. \$1.50, per bag (200 lbs.) \$2.75.

BLOOD AND BONE.

One of the most complete fertilizers for all purposes, and especially valuable for all kind of garden truck, wheat, corn, and potatoes.

Price, per 100 lbs. \$1.50, per bag (200 lbs.) \$2.75.

LAND PLASTER OR GYPSUM.

May be regarded as a fertilizer, though acting indirectly, and is of a well-known value, especially at a distance from the sea coast. It seems to have a specific effect upon clover and is useful upon potatoes, grass, and grain.

Price, per bbl. (about 275 lbs.) \$2.75.

SPECIAL PRICES ON FERTILIZERS IN TON LOTS.

Address all Letters to

MANGELSDORF BROS. CO. Atchison, Kas.

Mangelsdorf Bros. Company.

SEEDS

PLANTS

FLOWERS

FRUIT



*** ATCHISON, KANSAS ***